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PRACTICAL OBSERVATIONS ON THE OPERATION FOR THE STONE. *Communicated by* MR. BARLOW, *of Blackburn, Lancashire.*

[With Engravings.]

THE extraction of the stone from the human bladder, by the operation of Lithotomy, has, from the earliest periods of Surgery to the present day, been ranked amongst the most difficult and dangerous operations, and has particularly engaged the attention of many ingenious men; and a multiplicity of instruments have been invented, to facilitate its performance. Annexed to the following remarks, I have sketched an outline of the bistoire caché,* with a beak and staff, with a contracted groove for the beak of the bistoire to slide in. Should this additional invention to this instrument, together with the observations contained in the following pages, meet your approbation, they are at liberty for insertion in your valuable Journal; and if the inexperienced operator be hereby prevented from error, my intention will be fulfilled.

The stone in the urinary bladder is a disease, which neither sex, nor age, are wholly exempt from, nevertheless men are much more liable to this complaint than women, owing to the peculiar conformation of the urinary organs.

Notwithstanding the assiduity bestowed by the Faculty, in endeavouring to find out a specific solvent for the stone, it is truly lamentable to observe, that, hitherto, the most ardent attempts have proved ineffectual. Though stones are more frequently found in the bladder and kidneys than other parts of the system, nevertheless there are numerous instances recorded by writers, of stones being found in

* We are indebted for the original contour of the bistoire caché, to Frere Cosme, a French surgeon.

almost every part of the human body.* If a stone be once formed of a magnitude too great to be expelled naturally by the urinary channel, it is highly probable that the art of Medicine can effect no salutary change on the stone, sufficient to destroy its texture completely, though in some particular constitutions, and periods of the complaint, I am disposed to believe, that certain medicines may so far counteract the disposition to the formation of calculi, as to prevent in some degree their further growth for a certain time, and may also produce a change in the bladder, sufficient to appease the consequent irritability excited by the existing stone; it yet remains a task for the chemical philosopher, to point out hereafter a menstruum sufficiently powerful to decompose the urinary calculi in the bladder, without injury to that viscus; and it is to be ardently hoped, that the time is not far distant, when this arcanum will be disclosed. It would be foreign to my present purpose, to enumerate the various medicines, which have at different periods been administered to abate the distressing symptoms of this disease, or otherwise intended to destroy the texture of the calculi in the bladder; it is sufficient in this place to observe, that the hazard attending the exhibition of lithontriptics, if not cautiously administered, may prove deleterious to the constitution of the patient; and when entrusted to the empiric, the most pernicious consequences may be dreaded, insomuch that in some instances the patient's health has suffered irreparable injury, and the advantages otherwise derivable from lithotomy have been thereby precluded.

Though most authors have enumerated various symptoms, as being unequivocal marks of the existence of stone, yet these are not to be considered altogether as distinct and infallible guides; some of the symptoms accompany-

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* It is to be observed that quadrupeds, and every human being, are liable to calculous concretions being deposited in different parts of the body, and many instances are recorded by authors, of the existence of stones in the bladder and kidnies of different animals of an enormous magnitude. Morgagni relates several examples which occurred to him when employed in dissecting dogs; in the bladder of one of these animals he found a stone which weighed a pound and a half.

In the Memoirs of the Royal Academy of Surgery at Paris, there are many instances related of calculous concretions being found in the matrix, by M. Lewis; and in the Journal des Scavans, is a remarkable case of the same kind; and whoever wishes to investigate the subject more minutely, may peruse the works of the following authors, Marcellus Donatus, Tolet, Ambrose Parey, Hildanus, Le Dran, Hody, Lieutaud, Bailie's Morbid Anatomy, and Friend's History of Physic.

ing stone in the bladder are very similar to other affections of its appendages; such, for instance, are the diseases of the kidneys and prostate gland; and in some instances the mind of the patient has been strongly impressed with a vague idea of the existence of a stone in the bladder, but on a thorough investigation of the malady, it has sometimes been found to originate from some occult disease affecting the vicinity of the bladder, which on a superficial inquiry very much resembled the symptoms so often concomitant on stone in the bladder.

The difficulty and danger attendant on the operation of lithotomy, has been pointed out by most surgical authors, and in the earliest periods of medicine, of which we have any traces of this malady transmitted to us; we find the operation was principally ordained by the antients to be confined to a select class of men, who made it their peculiar business, and who were termed by the Greeks Lithotomi, and are called by the moderns Lithotomists; this we perceive is sufficiently illustrated in the oath of Hippocrates,* and fully accords with this axiom in Horace:

"——— Quod medicorum est
Promittunt medici, tractant fabrilia fabri."

Where, amongst other ingenious precepts set forth therein by this venerable author, I will relate one to elucidate the candour and purity of mind which this father of medicine possessed. "I swear, says he, by Apollo the physician, by Esculapius, by his daughters Hygeia, Panacea, and by all the gods and goddesses of the Heathen Mythology, that cutting for the stone I will not meddle with, but leave it to the operators in that way." Hence it is highly probable, that the mode of operating for the stone, at this early period, was solely confined to a set of empirics, who, in all likelihood, kept it a secret.

Celsus is the first author who has given any particular account of this operation, from which it has derived the appellation of the Celsian or Guidonian method, or Apparatus Minor, or Cutting upon the Gripe;† and was the

* Though Hippocrates, as also some of the less antient writers, have ranked wounds of the bladder as being inevitably mortal; yet many examples are to be found to the contrary, amongst the works of Tulpius, Vanderviel, Paré, Bauhin, Hildanus, Morand, and others.

† This operation of cutting on the gripe, has since the time of Johannes de Romanis, been called cutting with the lesser apparatus, by way of distinction from his new method of operating, named the greater apparatus, or apparatus magnus, from the greater number of instruments employed in it.

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chief mode of operating promulgated during the space of sixteen centuries. Celsus directs the operator to introduce the fore and middle fingers* of the left hand into the anus of the patient, (if a male) and lay his right hand lightly upon the lower part of the abdomen; by this means the stone is brought to rest upon the neck of the bladder; a lunated incision is then to be made in the skin, near the anus, as far as the neck of the bladder, with the horns pointing a little towards the ischia; then, in that part where the bottom of the wound is straiter, under the skin, a transverse wound must be made, by which the neck of the bladder will be cut, and the urinary passage be something larger than the stone; when the opening is finished, the stone comes into view, which, if small, may be pushed forwards, and taken out with the fingers; but, if large, it must be extracted with the uncus or crotchet.† Various conjectures have however been advanced by authors, respecting the exact method in which Celsus operated; and to settle this point in dispute would be a task neither easy nor useful, more particularly when we consider the imperfect state in which anatomy was understood during the period in which this author lived; and it is probable, that this method, as above described, was not the only one of extracting the stone from the bladder in the days of Celsus, though he is silent on that head.‡ The method of operating described by Celsus, though easily effected upon young and spare subjects, is nevertheless attended with considerable hazard by the transverse incision, for if either the vesiculæ seminalis, or the vasa deferentia, be divided, or their excretory ducts wounded, their functions will be destroyed, and a privation of all future procreation will be incurred; and the same consequences ensue as if castration had been performed; and some one or other of these parts, by the semilunar and transverse incision as above directed by Celsus, must be inevitably wounded in the operation,

* P. Egineta was the first writer who directs the operator to use the fore-finger only, and this practice is certainly more eligible, particularly in young subjects.

† It is a little surprising that Celsus should limit the operation to those between the age of nine and fourteen years, as it is probable his mode of operating would be equally eligible during the periods of old age and infancy. Paulus differs in some respects from Celsus on this point, for he allows the operation to be practicable both in the middle and sometimes in an advanced age.

‡ Albucasis, an Arabian physician, has given a pretty full account of the operation of lithotomy, particularly in women.

operation, particularly if the stone be of considerable size; these objections have no doubt caused the Celsian method to be almost universally exploded.

The Great Apparatus, (or *Methodus Mariana*) was invented by Johannes de Romanis, and made public by his scholar Marianus, about the year 1535. In this operation a grooved staff is conducted into the bladder along the urethra, the handle of which is to be turned over the right inguen of the patient, by which the concave part of the staff will appear prominent in the urethra, on the left side of the perineum, in which position it must be secured by an assistant with one hand, while he raises up the scrotum with the other; the operator then makes an incision from the termination of the scrotum, and on the left side of the perineum; to within an inch of the anus; the urethra is next to be divided, from its bulb to the commencent of the prostate gland; and this is usually effected by turning the back of the knife towards the anus, and finishing the incision in the direction towards the scrotum. The urethra being thus laid open, a conductor, or blunt gorget, is to be introduced into the bladder, and the staff withdrawn; the neck of the bladder is then to be dilated sufficiently to allow the extraction of the stone, and various instruments have been invented for this purpose. This operation appears liable to many objections, for neither the prostate gland, nor the neck of the bladder, are divided by the scalpel; and the dilating of these parts sufficiently for the purpose of extracting the stone, must unavoidably produce considerable laceration, and not unfrequently irreparable injury to the patient. The more antient method of cutting upon the gripe might probably be executed with more ease, and greater safety to the patient, than by the great apparatus; provided the operator, after fixing the stone on the left side of the perineum, made the incision in the manner directed in the lateral operation.

Of the High Operation, or Apparatus Altus.

This operation was made known in the year 1561, by Pierre Franco, who performed it with success, on a boy of two years old, at Lausanne, in Switzerland; for on finding the stone too large to be extracted by the operation in the perineum, he had recourse to the high operation, as a method of necessity, rather than choice, and attributes his success more to chance than art, and earnestly dissuades his professional brethren from imitating the practice, and wholly abandons the operation in future himself; since

which time no examples are recorded of the high operation, till about the year 1719, when Mr. Douglass and Cheselden adopted this method in England, and afterwards the same mode of operating was practised by Morand, in France.

It is the middle of the anterior part of the bladder, where the incision is to be made in performing this operation; but except this viscus be considerably distended, which is very seldom the case when affected with this malady, there is much danger of wounding the periteneum; and to avoid this, different methods have been proposed and adopted, with a view of distending the bladder to facilitate the operation; some authors recommend air forced therein by a pair of bellows,* others prefer injections of warm water prior to the operation, and to be retained in the bladder, by means of compression upon the urethra; another method has been adopted of allowing the patient a liberal use of diluent liquors for some time before the operation, and securing the urine in this viscus with a ligature upon the urethra; this last mentioned mode of distending the bladder appears to me the least objectionable, as there is certainly much risque incurred by whatever means that organ is artificially distended, for if the tone of the muscular fibres be destroyed, all hopes from the operation of lithotomy may be abandoned.†

In order however to identify the plenitude of the bladder, in its natural state, the finger of one hand of the surgeon may be introduced into the anus of the patient, and the other hand be laid on the hypogastrium; and by an alternate pressure from these two points, the operator may form a tolerable idea of the capacity of this viscus, and probably enable him to ascertain, in some degree, the size of the stone; some knowledge may also be acquired of the internal capacity of the bladder, by observing the quantity of urine discharged by the patient at different intervals before the operation; and this may in some measure tend to direct the operator of the certitude with respect to the quantity of liquor it is proper to inject or restrain in the bladder, without proving injurious.

When the operation is to be performed, and every thing in

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* It is more than probable that Franco did not distend the bladder, either by injection or inflation, upon the child, on whom he cut after the high operation.

† Cheselden relates a fatal instance, where the bladder was burst by injecting too much water into it.

in readiness, an incision is to be made in a line with the linea alba, and a little to one side, beginning about four inches and a half above the ossa pubis, (if an adult) and bringing it down to the junction of the symphisis; the integuments being thus divided, the incision must be carried between the recti and pyramidal muscles, down to the bladder, which viscus is then to be laid open in a direction parallel with the external wound, but not quite to the same extent; the bladder is then to be punctured, and the ligature on the penis at the same time removed, lest the water be extravasated in the cellular texture; the stone is then to be extracted by manual assistance, and the wound of the integuments secured by a few sutures, leaving a small opening at the part next the pubis for the purpose of permitting any discharge which may accompany the progress of the cure.

It is evident that larger stones may be extracted by this operation, and with greater facility to the surgeon, than by any other means yet adopted, and various have been the opinions of authors, respecting the advantages and disadvantages attendant on the high operation, when compared with the other methods; nevertheless, when the stone is of a magnitude too great to be extracted by the lateral operation, the high operation undoubtedly presents a resource, confirmed by the authority of authors of the greatest veracity, such for example are Francus, Winslow, Colot, Middleton, Cheselden, Greenfield, Garengeot, Thornhill, and Heister.*

Morand, in a dissertation on the high operation for the stone, says, "Though I am convinced of the advantages and facility of this operation compared with the method of Marianus, I think it would be imprudent to undertake it upon all without distinction; perhaps it may have been their performing it upon all indifferently, that has a little discredited it in England;" and he further remarks, "That the high operation is the only sure method of extracting large stones and those which are contained in some particular bag† of the bladder, as has been often seen."

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* This last mentioned author records a case wherein he failed in extracting a fragment of a stone by cutting in the perineum, and was afterwards under the necessity of having recourse to the high operation.

† Though the existence of stones being found encysted, or adherent in the bladder, has been much doubted by some writers, yet many instances of such cases having occurred, are related by the following authors, Schenkius,

Mercurialis,

To shew further the high estimation with which this operation was at one time held, I will transcribe a passage from Douglass, in the Appendix to his Translation of Morand's Dissertation on the Stone. "From all which I think I may justly infer, that we ought to make the high operation in all cases from five to fifty years of age, when the patient is otherwise in a good state of health; because experience, the best of all arguments, shews that such patients stand a better chance of living after this than any other method; and above all, have no ground to fear being plagued during life with a fistula, incontinency of urine, or of being made impotent by it; one or all of which often succeeds the other operations."

It appears evident from these testimonies, and the history of some remarkable cases, that the high operation would be more safe and eligible, under some particular circumstances, than the lateral method, and particularly where there is ground to believe the stone to be either very large, or a number of stones cohering to each other, or where the bladder is divided into two or more bags or cavities; such cases, for example, are related by different authors. Hildanus mentions the case of a young man of twenty years of age, from whose bladder he extracted a stone which weighed 22 ounces, and had the figure of a cupping glass; the patient however died in the hands of the operator. See Cent. iv. Obs. 5; also Cent. iv. Obs. 50.

It is asserted that Collot Germain, an eminent French surgeon, performed the operation of lithotomy with success upon a criminal in the reign of Louis XI. King of France, and though historians are divided in opinion with respect to his mode of operating, yet there is some reason to suppose he adopted, in this instance, the high operation, because among other circumstances, he mentions the reduction of the intestines, and the suture of the abdomen. If this was the case, it is probable that he was the first Lithotomist who attempted the section above the pubis; and may we not from hence, with more propriety, date the epocha of the high operation to this incident of the criminal,

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Mercurialis, Fernelius, Bauhin, Barbette, Holerius, Heister, Sharp, and Dr. Preston, in the Philosophical Transactions, and also the Memoirs of the Royal Academy of Surgery at Paris. M. Desault in the Parisian Chirurgical Journal, has given a plate representing an instrument he has invented, called a Kystiotom, which appears well calculated for the purpose of facilitating the extraction of encysted stones; and I am informed it has been used in this country with success.

minal, as recorded by Collot, than to that related by Franco on the child at Lausanne in Switzerland; for Collot lived near a century antecedent to that of Franco, who has hitherto been universally applauded as the promulgator of the Hypogastric section.

Louis the Eleventh reigned from the year 1461 to 1483, and Collot then being one of the first Lithotomists in that kingdom during the reign of this prince, his superior skill in operating is said to have descended to his posterity; and Philip Collot, a descendant of the same family, made some valuable improvements in the apparatus and method of operating.

Of the Lateral Operation.

The epocha in which the lateral operation was first promulgated was in the year 1697, by an ecclesiastic, whose name was Frere Jaques; he arrived, says Dionis, at Paris, as a sort of monk, in the habit of a rocolet, with this difference only, that he wore shoes, and instead of a cowl had a hat. He assumed the name of Brother James, and appeared plain and ingenuous; his diet was very sober, he lived on pottage and bread only; he had no money, and never asked any more than a few sols to pay for the setting of his instruments and mending his shoes. He formed to himself a religion according to his own fancy, backed with vows, the liberty of dispensing with which he left to his ordinary at pleasure. On coming to Paris, he produced a number of certificates as a testimony of his dexterity in operating in several provinces of France, which being presented to the surgeons of l'Hotel Dieu and de la Charité, his offers were rejected, as not being customary to expose hospital patients to the risk of experiments; nevertheless, a dead body was procured, into whose bladder a stone was conveyed, and which Frere Jaques extracted in the presence of many surgeons; but his method not being approved of, and Jaques finding himself coldly received by the physicians, resolved to leave Paris and retire to Fontainbleau, where he met with encouragement; for being allowed to operate on a boy from Versailles, and the operation succeeding, he thereby gained much applause; it is however extraordinary he used no preparatory regimen, or medicines, to his patients, nor troubled himself after the operation with any application to the wound, except a little oil and wine, on which he relied for the cure. It is said he was so intrepid in his operation, and negligent with regard to his patients, that when he was entreated by them for his more

more particular attention, he would answer, it is sufficient that I have extracted the stone, God himself will cure the wound. The reputation of Frere Jaques spread rapidly, and he afterwards returned to Paris, where he continued to practice gratuitously, and with tolerable success, for some time; but the excruciating tortures which the Marshal de Lorye suffered from his rash treatment, gave cause for the chief surgeons to investigate more particularly into his mode of operating; and this enquiry turning out unfavourably for Jaques, the consequence was that his reputation as a lithotomist was lost, and he became afterwards branded with ignominy, insomuch that even his partisans considered him a rash and ignorant operator; he therefore quitted France, and travelled through Germany in the capacity of a lithotomist. But Mr. Sharp appears to have a more favourable opinion of his mode of operating than most authors, for in his Treatise on the Operations of Surgery, he says, Jaques knew more of lithotomy than is generally imagined; for he saw when in France, a Treatise on this operation, published by Jaques, in the year 1702, wherein his method of operating is described as not being essentially different from the lateral operation as practised in his time; and as a further proof of the success he acquired, there is a certificate annexed to the publication, where it is asserted he had cut thirty-eight patients successively at Versailles, without losing one, and had so much improved his apparatus as to make use of a grooved staff.

The lateral operation, as practised by Frere Jaques, being so generally known, it is unnecessary in this place to enter into a detailed account of his invention; it will be sufficient to give a brief narration of the lateral operation as now practised by most lithotomists. It may not, however, be improper first to recite the boundaries, and parts connected with the operation, as guides to facilitate its performance with greater safety to the patient; these are the symphysis pubis, raphe, tuberosity of the left ischium, anus, and the convex projection of the staff in the perineum. The parts to be avoided in the operation are, the bulb of the urethra, the pudical artery, rectum, and vesicula seminalis. When the patient is properly secured, and every thing in readiness for the operation, the surgeon should introduce the staff and distinctly feel the stone, after which the handle of the instrument must be made to pass over the right groin of the patient, and be secured in the situation by an assistant, in such a manner that the concave part may be evidently felt on the left side of the perineum;

perineum; then the surgeon, with the utmost coolness and undaunted firmness, must begin the incision about an inch below the termination of the scrotum, a little under the arch of the ossa pubis, and rather on the left side of the rapha, cutting through the skin and cellular substance, in an oblique direction, for the space of four inches, (if an adult) along the perineum, and in an equal line betwixt the tuberosity of the left ischium and anus, and terminating about an inch below the approximation of these two points; the skin and cellular membrane being divided, the muscles are then to be intersected in a line with the staff, and external incision; the groove of the staff should then be found, by pressing the point of the fore finger of the left hand against the sulcus, as a guide for the point of the knife; the membranous part of the urethra is then to be divided, and this may be effected with greater safety by turning the back of the knife downwards; and the index of the operator's left hand being made to press down the rectum, whilst the cutting edge of the knife divides the membranous part of the urethra upwards, along the sulcus of the staff, the whole length from near the commencement of the prostate gland to the bulb of the urethra; the back of the gorget is then to be conducted into the groove of the staff, about an inch from the prostate gland; the operator then takes hold of the handle of the staff with his left hand, which he elevates to nearly a right angle with the body of the patient; he then raises himself from his seat, and, at the same time, with the staff in the left hand, and the gorget in the right, with its beak in the sulcus, he makes a uniform pressure with one hand against the other, and gently pushes the gorget along the groove, at the same time depressing the handle, till it has evidently passed into the bladder; the staff is then to be gently withdrawn in a direction, with the concave part towards the pubis of the patient; the fore finger of the operator's right hand is then to be passed into the bladder, upon the gorget, and if the stone can be thereby detected, the gorget may then be withdrawn, and the middle finger of the same hand be introduced in its place; the stone may generally be extracted by the combined efforts of the two fingers thus acting as forceps; if this however cannot be accomplished, the forceps must then be cautiously introduced along the fingers into the bladder, which are then to be withdrawn, and the stone searched for with the forceps, and extracted according to the precepts so minutely described by authors.

It is to be observed, that in emaciated subjects, and where the operator is perfectly acquainted with the anatomy of the parts connected in lithotomy, I am persuaded the division of the prostate gland, and the necessary portion of the neck of the bladder, may be much more easily and safely executed, with either the common scalpel, or a beak pointed bistory, than the gorget; and particularly in cases where the stone is fixed at the neck of the bladder, and the natural entrance into that viscus is so much blocked up, that the complete introduction of the staff is impracticable. Thus circumstanced, the operation may be best effected by the surgeon passing the staff to the place of obstruction, and then making an incision with the scalpel into the urethra on its point, and after withdrawing the staff, the beak pointed bistory (as represented in the annexed plate) is to be gently passed along the urethra, by the side of the stone, into the bladder, and the division of the prostate gland and neck of the bladder be made by withdrawing the instrument, and executing the division of the parts in a lateral direction, as hereafter specified in the use of the improved bistoire caché. For example, the cases requiring this mode of treatment may be found in the Medical Facts and Observations, vol. 8; Medical Records and Researches, London Memoirs, vol. 5, Ingram's Observations in Surgery, Saviard's Surgical Observations, and the Edinburgh Essays and Observations, vol. 3.

I have thus given a brief history of the various methods of extracting the stone in men, which has at different periods of time been sanctioned by cotemporary lithotomists, and it is hoped the chirurgical reader will not accuse me of palpable omission, in not having entered more fully* into the collateral incidental circumstances sometimes attendant on lithotomy; for, though conciseness has been my aim, yet I hope this general outline will be sufficiently illustrative of the subject, as to convey an adequate idea of the utility consequent on the following remarks; I nevertheless flatter myself, that the additional improvement which

* It is my intention, should these pages meet the approbation of the public, on some future occasion, to prosecute the subject still further, by drawing a few practical inferences of the comparative advantages, and disadvantages, attendant on each mode of operating; together with the regimen necessary to be observed; and also observations on the formation and decomposition of calculi in the bladder, with remarks on the operations of Nephrotomy, &c.

which I have made to the bistoire caché, as represented in the third volume of the Medical and Physical Journal, will be sanctioned by most lithotomists; and though I have operated oftener than once successfully with the instrument above alluded to, yet its defects have to me appeared distinctly palpable. The diversity of alteration which the gorget has undergone, with a view to surmount certain difficulties attending its introduction into the bladder, are a sufficient apology for practical novelty; yet it is a matter of doubt, whether the advantages from such a multiplicity of interchangeable discoveries, which have succeeded each other in the apparatus belonging to this operation, have been altogether realized in the same ratio with their numbers; it is however at all times to be wished, that in proportion as the art of surgery improves, the number of instruments will be proportionately retrenched; nevertheless, I have to crave the same indulgence in this respect, in common with others of the profession, who have attempted to add something to the stock of surgical improvement; and if I have failed herein, let it be remembered that I have endeavoured to be useful without prolixity; and perhaps I may at least be entitled to some portion of gratitude from the reader, in having condensed into a narrow compass a number of facts and opinions relative to Lithotomy, which are dispersed amongst the works of a multiplicity of surgical authors, and which I have reason to believe are not always easy of access to the generality of readers, without considerable expence, and ardent application. The work of the gorget is to divide the prostate gland, and a portion of the neck of the bladder; but if the practical surgeon attentively and impartially views the mechanism of this instrument, and the parts to be divided, and avoided, in the operation, he will not hesitate to determine that its construction is not well adapted to execute the purpose for which it was invented; and it is doubtful whether ever it can be used, even in its most improved state, with perfect safety, unless the bladder be in a state of distension; which is seldom the case when indicative of lithotomy. In operating for the stone in the common way, there is evident danger of the beak of the gorget slipping out of the groove of the staff; and if pushed to the hilt with the customary force, and to the same distance in every individual case, whether the bladder be collapsed or distended, it is evident, that by this rash mechanical impulse, the point of the gorget may pass through

through the back part of the bladder, and puncture the rectum; this dangerous circumstance has been known to happen under the guidance of the most celebrated lithotomists; nor can the gorget make so clear a cut as is to be wished; for, as the parts to be divided are movable by pressure, and apt to recede before the point of any instrument so constructed, it is manifestly evident that a compleat section will be thereby difficult to make. The danger which the gorget incurs to the patient, by being pushed precipitately along, and the liability of its either slipping out of the groove of the staff, and penetrating the intestines, can scarcely be pointed out in terms sufficiently cogent to prevent impendent mischief; but the bistoire caché, with the additional beak, is totally exempt from such accidents, and it is not improbable that most of those patients who have died of this operation, when free from any other disease, have suffered from this accident. Vide Benj. Bell's Surgery.

The bistoire caché in common use, I must acknowledge, is considerably less liable to this accident than the gorget, but is in other respects subject to do mischief, owing to the liability of the point of the instrument sliding out of the groove of the staff; and if much force be used (though not absolutely necessary with this instrument) at this period of the operation, and this event take place, the point of the bistoire may do irreparable injury, by being pushed into the rectum, either before, or after having passed into the bladder. On deliberate reflection, I am firmly convinced that these difficulties and dangers attendant on either of these instruments will be obviated by the use of the improved bistoire caché as before mentioned, together with a grooved staff, as represented in the same annexed plate. Their use are as follows: After the operator has introduced the staff with the contracted groove into the bladder, and so far proceeded in the operation as to have completely divided the membranous part of the urethra, he then, with the beak of the bistoire when shut, conducts it into the sulcus of the staff, at the part where the contraction commences, and then gently and without force pushes it along the groove into the bladder; this step of the operation will be generally identified, either by a flux of urine, or the detection of the stone by the point of the instrument; the staff is then to be withdrawn, and the operator may, by moving the bistoire, ascertain the capacity of the bladder, and probably form some idea of the magnitude,

situation

situation, and number* of stones contained in that viscus; after which the instrument is to be opened to the extent fixed by the screw at the handle, before its introduction, and the cutting edge is then to be turned obliquely outwards and downwards, that the prostate gland may be divided nearly on the left side, and rather in this direction than horizontally lateral; the surgeon then withdraws the instrument in a straight line towards himself, and with a degree of celerity sufficient to execute the division of the prostate gland, and a part of the neck of the bladder, proportionate to the size of the patient, and sufficient to allow a free exit of the stone, and in a manner most likely to promote a speedy union of the parts; the operator should on withdrawing the bistoire, keep in mind the anatomy of the parts which are to be divided, lest by inattention, the erector penis, and probably a branch of the hypogastric artery, named pudica externa, be divided, and the functions of the parts be thereby destroyed; and should the instrument be placed with the cutting edge too much inclining towards the anus, and be withdrawn in that direction, there will be danger of wounding the vesicula seminales, and intestine. By an attention to these directions, the surgeon will be enabled to perform this important part of the operation with greater ease to himself and safety to the patient, than by the use of the gorget.

Many important advantages I am confident will be attained both to the surgeon and patient, by this mode of operating; and I trust it will appear to the ingenious lithotomist, that this instrument, when used with the contracted grooved staff, claims an established preference over any other invention yet made public. There is in the Medical and Physical Journal, a description of an instrument with a plate annexed thereto, intended to supersede the use of the gorget, and invented by Mr. Watt of Paisley, which appears to possess some advantages over this instrument; it

* Various instances are recorded by authors, respecting the number of stones occasionally found in the bladder. I had lately a case under my care of a man, near eighty years of age, out of whose urethra I extracted more than twenty stones, some of which were very large; after death, leave was obtained to inspect the bladder, and out of this viscus nineteen stones were extracted, three of the largest were each of the size of a pullet's egg; the bladder was very much diseased, and in some parts was three-fourths of an inch thick; these stones had a very irregular surface, though there was much uniformity in their shape; they were all of a light and chalky nature.—— Hildanus relates the history of a young man who emitted 300 stones by the urethra. Centur. 1, Obs. 69.

it has, however, this imperfection, that by being made nearly straight, its introduction into the bladder along the sulcus of the common staff, will incur some embarrasment to the operator and danger to the patient. Another material objection to this instrument is, that if the prop or cutting part be raised out of the groove, it forms an acute angle, consequently will be liable to cut a greater portion of the neck of the bladder than is absolutely necessary, but in other respects is not very dissimilar to the one I have been describing.

The apparatus invented and represented by Sir James Earle, in an appendix to his treatise on Lithotomy, has the merit of ingenuity, and may be a guide to the young operator, in determining the line proper for making the external incision, and the division of the urethra, but is not intended altogether to supersede the use of the gorget, therefore it does not become manifestly necessary in this place to elucidate its use; it may be proper, however, to observe, that in the application of this instrument there will be some difficulty in adjusting the parts of the two staffs exactly together, owing to the tendency which the short staff may occasion by a small deviation at the hinge.

Occidit qui non servat.

Of the Extraction of the Stone from Women.

It has been before observed, that the female sex are much less liable to the existence of stone in the bladder than males, chiefly because the neck of that organ in females is not surrounded with the prostate gland as in men, and the cavity of the urethra being much shorter, less curved, and more easy of distention, renders the spontaneous evacuation of calculi through the canal of the urethra a more common occurrence, consequently the operation of lithotomy becomes seldomer necessary in the female than the male; and if we peruse the works of some authors who have treated on the subject, and credit their accounts of the enormous size of stones naturally discharged or extracted from the urethra, we shall be almost led to believe that the operation of lithotomy will very rarely, if ever, become necessary in females. Such, for example, is the case related by Borelli, (Cent. 2, Obs. 22) of a stone coming spontaneously from a female the size of a goose's egg. Kirkringius and Bartholin, each describes one as large as a hen's egg. And for more instances of a similar nature, the reader may consult the works of Celsus, De

Graaf,

Graaf, D. Hieronymus, Tulpius, Middleton, Colet, Morand, and the Philosophical Transactions.

The earthy particles of the urine have the attractive quality of generating calculi, and adhering to any foreign indissoluble substance in the bladder; which, if not timely expelled, may afford a basis for the formation of a stone. Numerous instances are recorded by authors of needles, bodkins, and other extraneous substances, having been thrust up the urethra into the bladder of females, and become a nucleus for a stone. Morgagni relates several cases illustrative of this fact; and one of a man, in whose bladder, on dissection, was found a calculus of a considerable size, and a needle buried in the centre. A similar instance is mentioned in the Edinburgh Medical Essays and Observations, vol. iv. See also Cheselden, Parey, Tolet, and Dionis. Mr. Proby, in the Phil. Trans. No. 260, page 455, relates a case of a bodkin being successfully extracted out of a woman's bladder by the high operation. See also Medical and Physical Journal, vol. 9. Dr. James, in his Medical Dictionary, relates an instance of a gentlewoman being in labour, and attended by a man-midwife. "When I was called in (says he) he told me the stone was so unluckily situated, that it was impossible to deliver her, every pain bringing the stone into the passage; and was of opinion that the stone should be taken away immediately, before she could be delivered. This however I opposed, and the patient was delivered by proper management. Upon searching her about two months afterwards, I found the stone situated partly in the urethra; so that by drawing the edges of the urinary passages aside, I could see it. Upon this she consented to have the stone taken away, and a day was appointed for the operation; but the morning it was to be performed, her courage failed, and she determined not to undergo it. About six weeks after, I was called again, and found she had parted with the stone spontaneously, without much pain; and afterwards she was for some months troubled with an incontinency of urine, which gradually went off, and she recovered perfectly."

Morand relates the case of a girl, eighteen years old, who by the efforts of nature alone, voided on the 29th of October, 1724, a stone from the bladder, weighing four ounces. Notwithstanding these natural advantages which females inherit, we must acknowledge that they are not absolutely exempt from the necessity of the operation of lithotomy; a case sufficiently shewing that manual assistance is sometimes required, is related in the Philosophical

 Transactions,

Transactions, No. 209, p. 103, by Mr. Basil Wood; the length of the stone was 3¾ inches; in breadth, where largest, is very near 3¼ inches; its thickness 1⅞; and its weight nine ounces and a half averdupois. More examples of this kind might be adduced from good authority, where the stone has proved too voluminous to traverse the urethra, or even by mechanically dilating* the channel by means of the introduction of some foreign substance, or by the more dangerous method with the instrument called Dilatator or Speculum Vesicæ. There is an interesting case recorded by Mr. Bromfield, which terminated successfully, where the ingenious author introduced the closed extremity of the appendicula intestini ceci of a small animal into the bladder of a girl. Into the open end of the appendicula warm water was injected by means of a syringe, and secured externally by a ligature; and by repeatedly twisting the end which was left out, the cervix vesicæ dilated sufficiently to allow the exit of the stone. The different methods adopted by authors of dilating the urethra, may no doubt be practised with safety to a certain extent,† where the circumference of the existing stone, and the canal of the urethra, bear no great disproportion to each other; but on the other hand, where the size of the stone is supposed to present great disparity of proportion to the natural diameter of the urethra; then, to prevent laceration, the ordinary method of dilatation should be abandoned, and recourse had to either the division of the urethra, as hereafter directed, or the high operation, as Falconet, Heister, Douglass, and Morand‡ recommend.

Some authors have, under these circumstances, adopted the

* Prosper Alpinus, in his Medicina Egypt. page 104, mentions a practice adopted by the Egyptians of inflating the urethra to effect the exit of the stone; but I find no successful examples of this method exercised amongst the Europeans.

† This circumstance is sufficiently proved by the testimony of many authors, amongst whom are Greenfield, Tolet, and Hildanus. We have also a remarkable instance of this kind related in the Miscell. Nat. Curios. Obs. Dec. 2, and 10, of a woman being freed from a stone by the dilatation of the urethra, which weighed five ounces and a half. Douglass recommends the extraction of small stones by dilating the urethra with tents of prepared sponge, or gentian root; but, on the other hand, if the stone be large, he proposes the high operation, and distending the bladder with warm water prior thereto.

‡ This last mentioned author says, "As for the woman, I believe, that if the stone be small, the common method is preferable to the high operation; but, if large, the apparatus altus is better than the ordinary method, because of the incontinency of urine, which happens through the laceration and extravagant dilatation of the sphincter caused by the passage of a large stone."

the method of making an opening directly into the bladder from the vagina, by which route the forceps are conducted into that viscus, and the stone by that means extracted from the bladder. Gooch relates three successful cases of this mode of extracting the stone; nevertheless, by cutting through the vagina into the bladder, parts become unavoidably injured, which will in all probability either leave a fistulous opening, or produce a cicatrix, in the vagina; and should the patient afterwards become pregnant, it is probable that during the stage of labour, this disagreeable circumstance would either incur a laceration of the parts, or at least prove a material obstacle to delivery; hence it appears that this mode of operating is on this account objectionable, and not likely to become generally practised.

In those unfortunate cases where the stone can be identified, before the operation too far* exceed the ordinary size, it is certainly better to have recourse to the high operation, than hazard the life of the patient by breaking† the stone with the forceps in the bladder, or otherwise being compelled to the dreadful alternative of the compound operation; and this precept will perhaps be thought more applicable to men than women.

The usual method of extracting the stone from women is comparatively easy when contrasted with the operation in men; it consists in passing through the urethra into the bladder a grooved director, or staff, [illegible] straight, which the operator is to hold firm with his left hand, while with the right he conveys the beak of the cutting director into the sulcus of the staff, and gently passes it along the groove till it has entered the cavity of the bladder; the stone is then to be extracted, either by the fingers of the

surgeon,

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* Professor Borichius, and the celebrated Archiater, died in the operation, owing to the stone being so large that it could not be extracted at the perineum. There is a stone reserved in the Charity Hospital at Paris, which weighs 51 ounces; the man from whom it was extracted died during the operation.

† The first accounts we have on record, of breaking or [illegible] the stone in the bladder, is mentioned by Celsus, the author of which contrivance was named Ammonus, who upon this account, obtained the appellation of Lithotomist, or the Stone-cutter.

We are indebted to Andreas Cruce for the original invention of a pair of forceps, for the purpose of breaking stones in the bladder; this instrument, we are told, failed of effecting this purpose in the deplorable case of the celebrated Borichius above alluded to.

surgeon, or the forceps, as is practised in the operation in men.

From the shortness of the female urethra, this operation is more safe and easy to execute than in the other sex, yet it will evidently appear much simplified by the use of the bistoire caché, as before recommended in the operation on men. The mode of using the instrument is as follows: The bistoire is to be introduced shut along the urethra into the bladder; and the surgeon having found the stone with the point of the instrument, he then presses down the handle upon the head of the screw, which elevates the cutting edge; and turning the blade towards the left side, and rather obliquely outward, he withdraws the bistoire in a straight direction, and completes the division of the parts in a similar manner as directed in the operations on men. The use of the bistoire caché is so manifestly simple, and possesses those advantages when used upon women, that it will altogether supersede the use of the sound, grooved staff, and gorget, and may be made of any size proportioned to the age of the patient; and it may be also necessary further to mention, that when used on females, it may be made either with or without a beak.

Nov. 7, 1803.

REFERENCES TO THE PLATES.

Fig. 1.

A. The bistoire caché [illegible], including the blade and handle, ten inches [illegible].

B. The lever which is connected with the cutting blade, and by raising or depressing the screw C. the blade is made to open or shut, and may by pressure be elevated from the sheath to a distance suitable to the age of the patient.

C. The screw, which may be raised, or depressed, at pleasure; and the [illegible] is the prop which the lever B. is to rest upon when the blade is elevated.

D. A spring which raises the lever B. upwards, and serves to shut the instrument.

E. The beak or knob which is intended to fit the contracted grooved staff, Fig. 2, and the neck of the beak is to be made rather flat, to give stability thereto, and yet so small that it will pass freely along the contracted part, without letting the beak slip out till it arrives at the open point of the staff.

F. The blade, the point of which, for the space of three lines, is to be left obtuse, to prevent injuring the coats of the bladder.

Fig.

Fig. 2.

A grooved staff left open at the convex part, for the purpose of receiving the beak of the bistoire E. Fig. 1. and also an opening at the point, for the space of half an inch, for the exit of the beak, after having passed the narrowed part of the staff as far as the opening at the point.

Fig. 3.

Represents a history, its whole length seven inches, with a beak, or knob, and a small neck, so adapted as to slide freely, either in the groove of the staff, Fig. 2. or the common staff. This instrument appears well calculated to supercede the use of the gorget, when used on women, and may answer other purposes in various surgical cases.

To the Editors of the Medical and Physical Journal.

Gentlemen,

I shall be happy if you find the following Observations, taken from the notes I kept in the Mediterranean, worthy of a place in your Journal. They relate to a subject which has of late excited some attention in the medical world, though much less than it merits; I mean, the efficacy of the cold affusion in ardent fever.

The Second, or Queen's Regiment of Foot, forming part of Sir Ralph Abercrombie's army, sailed from England at Minorca, on the 21st of July, 1800. Being sent to attend a detachment of it on board the Thisbe frigate, and afterwards doing duty with the whole regiment on shore, I had occasion to observe the facts I am now to describe.

The men enjoyed good health while on board, with the exception of two or three cases of intermittent fever, which had broke out on the passage, and a cholera morbus, which appeared in the harbour in an alarming form, though with no fatal consequences. But on the 11th of August, two days after they were landed at Mahon, an ardent fever appeared among them, which in a little time made considerable progress.

For a whole week sixteen men, on an average, were taken ill each day. Their complaints, for the most part, came on suddenly, and very often when they were on parade. After slight languor and debility, the patient was all at once seized with violent head-ach, giddiness, pains, and extreme debility in the lower extremities, rendering him totally unable,

able either to stand or walk. When he was brought to the hospital, we found him labouring under all the symptoms of the most violent pyrexia, increased heat, quick pulse, and urgent thirst. Two or three of them had very frequently alternations of heat and cold; but, in all the rest, the preternatural heat of the skin was constant, and the patient's feelings uniformly hot and oppressive. The symptom of which they all most violently complained, was the excruciating head-ach.

I shall not trouble you with the observations I made respecting the causes of this fever, or the different remedies I employed, but confine myself to an account of the cold affusion. My opinion of its efficacy was previously fixed, from the perusal of Dr. Currie's valuable Reports, and from some striking cases which I had seen in the Edinburgh Infirmary, under the care of Dr. Gregory. I had the happiness to find that Mr. Wells, then Surgeon to the Regiment, entertained a favourable opinion of this practice, and we had an opportunity of accommodating a great proportion of the patients in a regimental hospital under our own care. I presaged the happiest consequences from it a... the men; and seized with avidity the opportunity offered, not of confirming my own belief in its advantages, but of observing such facts as might further elucidate the subject, and afford additional evidence, to convince my medical friends of the high utility of this practice.

In the mode of application, I observed the rules laid down by Dr. Currie, together with such precautions as appeared a priori to be dictated by reason. The patients to whom it was applied, were those whose skin was uniformly hotter than natural, and parched. I never used it where there was much perspiration; but, on the authority of Dr. Currie, I considered a slight moisture of the skin as forming no objection to its use. While the patient laboured in this state under tormenting head-ach, and every symptom of violent fever, I took him out of bed, stripped him quite naked,* and desiring him to hold back his head, and shut his eyes and mouth, poured a quantity of pump water first over the head, then over the breast and back, then washed the arms and palms of the hands, the thighs, legs, and soles of the feet; when the extremities, formerly hot, now

* When I had occasion to apply it to females, their delicacy was saved by allowing them to retain their shift, which was changed immediately after the operation.

now became cooler. The heat generally returned about the region of the heart; while, in the head, it continued during the first affusion with little abatement. I therefore again washed the head and breast, and so on alternately, till the whole surface became much cooler than before. After this the patient was laid in bed. If in the course of eight or ten minutes, the heat returned with equal or nearly equal intensity, he was taken out, and the operation repeated. The head-ach being the most obstinate symptom, and the last to yield to the cold affusion, the head was ordered to be shaved, and kept constantly cool, with a fold of linen laid lightly on, and dipped in water or brandy. Next day, whatever comparative relief the patient might experience, if any considerable febrile heat remained, the operation was repeated. In this application, I conceive it to be of great importance to begin with the head. The head-ach is attended with an external heat much greater in the head than over the rest of the body, indicating a peculiar sort of increased action in that part of the system. To begin therefore with cooling the head, tends to restore uniformity of action through the system. The same circumstance renders it necessary to keep the head cool during the whole course of the disease.

The effect of the cold affusion thus applied was an immediate relief from the head-ach, from the heat of the skin, and all the symptoms of pyrexia. In every case the rapidity of the pulse was diminished, and the patient always felt immediate comfort. In many cases, after ten minutes a gentle perspiration broke out over the body, which still further promoted the cure. Next day, if the febrile symptoms returned, they were always milder, and a second application of the remedy greatly diminished them. The head-ach continued for some time after the other symptoms went off, but by the perpetual use of cooling applications it gradually declined, (seldom requiring the application of a blister) and left the patient with no vestige of fever, except a degree of debility. In most cases a yellow suffusion appeared over the surface in the latter stages of the disease, but it gradually went off and seemed to require no peculiarity of treatment. As medical men, in adopting a new remedy, are often too zealous for its indiscriminate use, and those authors who treat on the subject might be suspected of overlooking some of the occasional bad consequences of their practice, I made it my business to attend to the varieties of the phenomena, and to observe whether or not, in any case, this application

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was ineffectual or seemed hazardous; but I could find no instance of this kind. Those patients who had previously a slight moisture on the skin were benefited as well as those whose skin was parched. Some shuddered and started when the water was applied, but this unpleasant sensation was very momentary, though I confess, in observing this, I would use the precaution of applying the water rather more gradually, lest an excessive shock should overpower the system in this state of febrile sensibility. The only patient in the regiment to whom the fever proved fatal, was an officer, whose obstinate disposition resisted the application of every powerful remedy, and in whom indeed the disease assumed a different type from [illegible] subject to a constitutional gloominess of mind, increased at that time by misfortune. I attribute the general efficacy of the cold affusion on this occasion in a great measure to its early application.

A similar fever was very prevalent among the na[illegible] the island, but still more so among the British [illegible] where it broke out in each regiment at a different [illegible] From any information I could collect, the cold [illegible] seemed to be unknown to the physicians of the island [illegible] could I ever find any instance in which it was employed in our military hospitals. Some of my friends advised me against its use from the unpleasant speculations to which its novelty might give rise. One gentleman, whom I [illegible] endeavoured to prevail on to employ it, told me afterwards that he had, notwithstanding, kept the heads of his patients cool in the same manner as I had done, and found it invariably serviceable for alleviating the head-ach. In many patients in the island the fever was attended with high delirium on the second or third day. None on whom the cold affusion was used had any delirium worthy of notice. Some of them complained of giddiness in the erect posture, and their minds were observed to [illegible] little during the night. From this I concluded that a strong tendency to delirium had existed, but was checked by the same remedy which removed the other symptoms. In many the fever was evidently cut short at once, and in all of them I had reason to think that its course was rendered much milder. The emaciation which appeared among the convalescents was not to be compared to that which generally takes place in fevers so violent. The disease, under this treatment, proved much less formidable than in the ships in the harbour, and in other regiments

on

on shore, where its fatality in some instances spread no small consternation.

Knowing the present spirit of enterprise which prevails in the medical world, I expected on my return to this country in 1802, that the cold affusion must be universally employed, and was rather mortified to find; that though no facts were brought forward to its discredit, many medical men seemed very unwilling to employ it. It is rather singular that while new articles, formerly reputed poisonous, are daily introduced into the Materia Medica, and experiments are made with them not only without scruple, but with zeal, the affusion of cold water in fever, a practice frequent among the ancients, and employed with advantage by some rude nations of modern times, should be considered as too extraordinary in its nature to receive a trial.

Some medical gentlemen complain of the prejudices of mankind as insurmountable obstacles to this practice. But do they not promote such prejudices by their mode of proceeding? They first *declare ingenuously* to the connections of the patient, that they wish to employ a remedy entirely new, a remedy which has the appearance of harshness, but on the beneficial effects of which they have considerable reliance. A preamble of this kind creates prejudices where they did not exist. The affectionate relatives are seized with the same horror as if a surgical operation on the liver or the spleen were proposed. No assurances of its safety will now prevail on them to comply with a practice, the mention of which is forced with qualms from the medical attendant, and that only in a case of extreme necessity. If it were attended with hazard, this procedure would be proper; but its apparent harshness, which arises solely from its novelty, is a very trivial objection to a practice, of the utility of which we are ourselves fully satisfied. It ought not to be mentioned unless it occurs to the persons concerned, I see nothing to hinder any practitioner from ordering a vessel of water to the bed-side of his patient, and proceeding with the affusion without any previous ceremony. Allowing prejudices to exist, their reign will be very short. The comfort immediately experienced by the patient will quickly dissipate their uneasiness.

In the medical practice of the army, the humour of the patient is seldom consulted. But if prejudices so strong had existed, I think I should have observed them, and this I never have done. When requested on a few occasions to visit patients in private life, I have found, on mentioning

ing the cold affusion, that instead of dreading it for its harshness, they were inclined to despise it for its simplicity. I recollect an aged woman under a fever in Minorca, whose daughter I prevailed on to employ it, only after prescribing as a placebo that the water should be mixed with some other ingredients. The vulgar are accustomed to place their chief reliance on drugs, of the virtues of which they are ignorant, and to overlook the effects of regimen and of temperature. Novelties in these articles do not make a forcible impression on them. But when such novelties are proposed to the physician, whose views are more extended, they appear to him in all their real importance, as changes which are not to be adopted but on the most solid foundation; and when he is at last convinced of their utility, he feels that his sentiments have undergone a serious revolution. But he should recollect how different the mode of thinking is among men at large; and that by treating other people as if their minds were affected in the same manner as his own, he may give origin to scruples which will be much less easily removed than those of an enlightened man.

It gives me very great pleasure to find from one of your late Numbers, that the cold affusion begins to be used with success in the yellow fever of North America. Where this formidable disease is attended with increased heat, all the advantages of this practice may be rationally expected. In other forms of the disease, we may probably be allowed to entertain great hopes from the employment of water of different temperature adapted to the state of the skin, or from a judicious alternation of the hot with the cold bath. These subjects begin to be cultivated with zeal and with considerable prospect of success by professional men. In forming our practical conclusions, we must however exercise that patience and caution which subjects at once so important and so delicate of investigation demand.

I am, &c.

HENRY DEWAR.

Edinburgh, Nov. 14, 1803.

To

To the Editors of the Medical and Physical Journal.

GENTLEMEN,

THE following Cases of Scarlatina, in which cold and tepid ablution were tried with unequivocal efficacy and success, occurred in the practice of the Finsbury Dispensary, under the care of myself and that of my friend and the assistant, Dr. Murray, now of Knaresborough. I have been prevented by a propensity to procrastination, from before offering them to your acceptance, of which, I hope, they may not be deemed altogether unworthy.

am, &c.

Southampton Row,
Nov. 21, 1803.

J. REID.

Charles Haywood, ætat. eight years, on May 24, 1803, attacked with severe pain of head, accompanied by rings and general uneasiness. On the following day visited by us; his head-ach and febrile anxiety greatly augmented; he complained of soreness in his throat, and upon inspection, the tonsils were found to be much inflamed, and of a deep red colour. His face, breast, and legs had assumed a bright red colour, from an eruption which had broken out that morning. He had lost his appetite. Tongue foul, but moist; eyes dull and heavy; body open; pulse quick, small, but regular; spirits little affected; skin hot and dry. He was ordered to take one table spoonful of a solution of two grains of tartar emetic in four ounces of water, and this to be repeated every half hour until full vomiting should take place; and it was directed that his whole body should be washed with tepid water, and afterwards carefully dried. This was repeated thrice a day.

28. The affection of throat continuing very severe, a blister was yesterday applied to the nape of his neck, and he frequently gargled with sage tea and vitriolic acid. He was washed as directed, and expressed much satisfaction after it, feeling himself less uneasy than he previously had been; in particular, after the first and third washings he fell into a fine calm sleep. Pulse less frequent and of better strength; throat still painful, but not so much inflamed; skin cool and relaxed; bad head-ach; eruption scaling off; appetite began to improve, and he was ordered to take porter.

30th.

30th. Washing had been continued till this day, when it was left off, a further perseverance in it being deemed unnecessary, the febrile symptoms having left him. Throat almost well, redness of skin having disappeared; a desquamation of the cuticle, as usually happens, succeeded; appetite good, skin cool, pulse 80, and regular; body regular. Being very feeble, the mist. Peruv. acidum. of the Dispensary was ordered to the extent of a table spoonful three times in the course of the day. This mixture consists of half an ounce of the bark and half a drachm ... sulphuric acid to half a pound of water.

Jane Haywood, æt. ... on the 30th of May was ... with pain of head, nausea, shivering, and soreness ... throat. These complaints became worse on the following day, and a bright red eruption came out on her body. She took gr. 15 of ipecacuanha, which operated fully, and had a blister to the nape of her neck.

June 3. Throat much inflamed, but not swelled ... 100, small and quick; skin hot, dry and tense; er... perfectly diffused, without any distinct spots; s... ed to be extremely feeble and low; tongue very ... moist; body regular. She took two table spoons full of the solution of tartar emetic, and vomited gently. She was washed with tepid water, in the same manner as was directed for the first mentioned patient, who is her brother, and felt very comfortable (as she expressed it) after each sponging. She had few bed clothes on her, and her chamber was kept well aired. She used the same gargle as her brother did, but would hardly take any nourishment, and in particular, strenuously refused wine and porter.

5. The washing was still continued three times in the day; and from being uneasy and very hot, she became cool and less irritable after the sponging; the inflammation of her throat was also much relieved; pulse 80, regular, but small. Her appetite began to return this day, and she ate pudding and a boiled egg with great relish. She was directed to take two table spoons full of the mist. Peruv. and on the next day found herself so much better as to come to the Dispensary, a distance of half a mile from where she resided. Fortunately no bad consequence followed this act of imprudence, and she recovered strength with rapidity.

Mary Haywood, æt. 20, was attacked with all the usual symptoms on May 12, about a fortnight previous to the illness

illness of her sister Jane. The eruption appeared on the fourth day of the disease, and had disappeared on the 18th of May, when we first saw her. She was then in a considerable stupor, had great dyspnœa, and seemed to have lost the power of swallowing from the passage being loaded with phlegm. Mouth and tongue extremely foul; lips black; pulse very frequent, but so feeble as not to be exactly numbered; skin burning hot, and very dry; body [illegible], face pale, and shrunk; rattling of the mucous in the throat; the torpor was at times interrupted by violent [illegible] delirium. A large blister was immediately applied [illegible] nape of the neck, which having begun to rise about three o'clock next morning, two table spoons full of the solution of tartar emetic were poured down her throat, and produced moderate vomiting. Her face, neck, and feet were likewise twice sponged with tepid water.

[illegible] She began to recover perception, power of moving, [illegible] swallowing, soon after the blister had taken effect. [illegible] and tongue much cleaner; pulse small, and 100, [illegible] stronger and more regular than at the first visit; [illegible] cooler. The washing was repeated; and a tendency to the torpor having recurred, her feet were immersed in warm water for nearly an hour.

James Haywood, ætat. 18, after the usual symptoms of fever and sore throat, had the eruption appear on his body on May 30, being the third day of his illness. He took an emetic of fifteen grains of ipecacuanha, and had a blister to the back part of his neck, which having risen extremely well, gave great relief to the affection of the throat. He was twice a day washed with tepid water.

June 3. Although this was the seventh day of the disease, and the eruption had disappeared, yet as his skin was very hot and arid, and his pulse remarkably full and strong, and very frequent, he was this day thrice washed with cold water. His throat being quite free from inflammation, no further remedies were thought necessary.

5. He was washed three times yesterday with cold water, and felt himself much relieved; his pain of head was removed; his skin became moderately relaxed and cool; pulse 80, and of good strength. He was dismissed convalescent.

Mary Norris, ætat. 9, was taken ill on July 29th, 1802. The day of the appearance of the scarlet eruption could not be learnt, but it was completely out on Aug. 2, (fifth day

day of the fever). Her throat was much inflamed, and somewhat swelled; pulse quick and feeble; body open skin hot and dry. She took two table spoons full of the solution of tartarised antimony, which operated to full vomiting; she had a blister to the nape of her neck, and gargled with sage tea and acid. She was washed with cold water, was kept perfectly cool, and allowed to remain but very little in bed during the day.

14. She also felt more comfortable after each washing; her skin was relaxed, and of natural heat; pulse still quick, and about 80, but of much better strength. Washing, of course, was discontinued; nor did she require any other remedies.

Two of her brothers were also affected with scarlet fever, which run a course very similar to that of her's; and as they were treated precisely in the same manner, and washed with cold water, it was deemed to be superfluous to give a longer account of their cases.

John Blackwell, ætat. 15, was first seen on A[illegible] being the sixth day since the commencement of his disorder. His skin had assumed a dark red colour, from an eruption that had come out on the third day of the fever, and which, as usual, was entirely diffused, without any distinct separate pimples. Throat much inflamed, and swelled; tongue white, and parched; skin hot; pulse very quick, and rather strong. He had an emetic given him early in the disease. He was directed to be washed with cold water, and had a blister applied to the nape of his neck. He gargled often with the common gargle.

20. Was washed eight times. The eruption had disappeared. Pulse 7[illegible], and of natural strength; appetite much improved; heat of skin, and general sense of uneasiness, removed; pain of head and soreness of throat gone; appetite beginning to improve; body open. No other medicines employed.

His sister, aged 18, also had scarlatina, and was visited on the second day of the fever. She was washed with cold water; but having a very trifling cynanche, no other remedies were administered, except an emetic. She was free from febrile symptoms on the third day.

Sarah Callad, ætat. 16, was admitted a patient on Sept. 17th, being the seventh day since her attack. Affection of throat very severe; considerable eruption remaining on her body; great febrile anxiety; nausea; sickness; pain of

of head; skin hot and tense: pulse small, frequent, and irregular. She had a blister to her neck and gargled frequently, which afforded relief to her throat. She was washed repeatedly with tepid water, and the fever left her on the 19th; but as she continued very weak, she took the bark mixture.

Richard Webb, ætat. nineteen, on September 18, was attacked with shiverings, head-ach and slight nausea, followed on the next day by soreness of throat and difficulty in swallowing.

21. The eruption appeared mostly on his breast. He was first seen on the 22d, when his pulse was quick and small, skin hot, thirst very urgent, body regular, appetite lost; throat much swelled, and was treated in the usual way. He was washed with cold water; had nourishing diet and wine and water; he likewise took fifteen grains of ipecacuanha.

24. He was almost free from fever; scarlet eruption had disappeared. The convalescence of this patient was tedious, and he had a swelling of the sub maxillary glands which proved very troublesome.

John Oxden, aged four years, on October 13, was seized with pain of head, shivering, sickness, and soreness of throat, succeeded on the third day by a bright red eruption on his breast and belly.

October 15. Throat much inflamed and swelled, intense pain of head, skin very hot and dry, pulse quick and small, but regular; body open. He was ordered to be washed with cold water, and kept very cool, with few bed-clothes, and the window of his room constantly open. He took ten grains of ipecacuanha without effect; and to gargle as usual.

18. Owing to the very blameable prejudice of his mother he was not washed, although most particularly directed: he was likewise oppressed by the weight of his bed-clothes; and the window of the chamber in which he lay, was kept open only at intervals during the day. His pulse was extremely feeble and irregular; eruption as before; pain of head very severe; throat very painful, and much swelled; mouth and tongue exceedingly foul. He was delirious the preceding night, and refuses to take any medicine or drink. He frequently screams violently, and at other times lay in an imperfect torpor; two tea-spoons full of the solution of emetic tartar were poured down his throat.

throat; this was again repeated, when it produced slight vomiting; but he could not be made to swallow more either of this or diluted sulphuric acid. A blister was put to the nape of his neck, and he was once washed with tepid water; but all in vain, for he died early next morning. The eruption, after death, passed most rapidly into gangrene.

Frances Game, ætat. nine, was first admitted as a patient on November 15, being the eleventh day of the fever. Eruption very trifling, and disappearing at intervals; excessive pain of head, with considerable soreness of her throat and mouth; and upon inspection, the inflammation of the tonsils was perceived to have spread to the internal fauces. Tongue red and foul. The inflammatory affection was removed by the use of remedies similar to those employed in the before mentioned patients. Her body was washed with warm water.

17. The fever had abated, the pulse was soft and of good strength, heat natural; but the general anxiety and the head-ach still continued. She was very feeble and had a very bad appetite. The washing was continued, and she began to take the Peruvian bark.

19. She was free from fever; but the pain of head still being very troublesome, blisters were applied to her temples, with the best effect.

Continuing to take the bark, she improved in strength and appetite, although slowly.

John Crick, ætat. 10. In this patient the usual symptoms were succeeded by the eruption on the fourth day, which hardly remained visible for two days. He was visited on December 22, the sixth day of his disorder, and no traces of the eruption could then be discerned. He was extremely low in spirits, and had a dread of death truly extraordinary in so young a person. He was very feeble, and could scarcely be kept in an erect posture without fainting; his skin was somewhat hot and dry; pulse very small and 90; tonsils of the throat of a florid colour, and rather swelled; appetite bad. A blister was applied to his neck, and afforded him much relief; he took a spoonful of emetic tartar, which operated mildly. His body was washed with tepid water twice in the course of the day; he drank red wine.

23. He was free from fever, but was left in a weak condition, and the fear of death still kept possession of his mind;

mind; skin cool and moist; pulse 88 and regular; he had very disturbed and uneasy sleep. He now took the bark and red wine and water freely. His convalescence was tedious, but was not attended with any dropsical swellings.

His sister, 13 years old, caught scarlatina, and was washed likewise with warm water. Her recovery was rapid.

John Vaughan, ætat. 14, was first admitted as a Dispensary patient on January 21, 1809, having been ill for seven, or eight days. He had taken two emetics; and, on the sixth day of the fever, had a blister to the nape of his neck. When we first saw him his thighs and legs were of a bright red colour; his pulse was very quick, irregular, and so feeble as not to be accurately numbered, it was 130 at least; skin hot and tense; tonsils of a deep red colour, and had several sloughs; great prostration of strength, and sense of general pain; eyes more red than natural, and dry; no appetite; body open. He was exceedingly deformed in person, and diminutive in size. His body was washed with tepid water; he used a gargle composed of half an ounce of myrrh, thirty drops of muriatic acid, and half a pound of water. He was ordered to take red wine freely, and to have two table spoons full of the acidulated bark mixture twice a day.

24. Fever nearly gone; scarlet eruption still visible; throat much relieved; he found himself easier; glowed considerably after the washings.

26. He was free from febrile symptoms, but remained very weak; however, in a day or two, his appetite returned, and he regained strength with rapidity.

Richard Vaughan, ætat. 11, having caught the scarlet fever from his brother, was visited on Jan. 28, the second or third day of his complaint. The eruption was copious, and of a very bright colour; pulse very quick and small; skin burning hot; tongue white, and dry; affection of throat very mild; excessive sense of general uneasiness; sleeps very badly from his extreme irritability. He immediately took two spoons full of the antimonial solution, which occasioned full vomiting. He was washed with cold water, and had a pill of opium at bed-time.

29. He washed twice, and found considerable relief from it. Heat natural; febrile anxiety diminished; eruption lessened in extent; bad sleep. He was ordered to take porter, and the washing was repeated.

31. The fever having completely left him, and his sleep

 and

and appetite having returned, he was considered as not requiring any further medical aid.

Observations.

1. A peculiar recommendation of the above mode of treatment is, the rare occurrence of dropsical affections after the disease when thus managed, which in persons treated in the old method, so frequently supervene, and prove so very troublesome, and often dangerous.

2. In people of a scrophulous habit, swellings of the glands very often follow scarlet fever; but where the washing has been seasonably and vigorously employed, these seldom take place, even in persons having the *marks* which denote a scrophulous taint. In general, where the eruption is extensive, the sore throat is trifling, and vice versa.

3. The case of John Vaughan admirably illustrates the utility of washing, since two emetics and blisters had been previously tried with no benefit; but the disease yielded considerably after the two first washings, and was removed after this plan had been persevered in for two days longer.

4. It ought to be kept in mind, that in an early stage of the disease, when the strength is not as yet much reduced, when the skin is hot and dry, and where the febrile anxiety is considerable, *cold* washing is decidedly indicated. But, when extreme debility has come on, after the fever has continued for several days, when the pulse is small and irregular, the skin is more relaxed, then the re-action produced by cold washing might prove too violent, and, of course, in such cases, *tepid* sponging is preferable.

Some Remarks *on the* Extirpatio Uteri, *as perhaps the only method of operating for the* Cancer Uteri, *by* Dr. Ch. Struve.

[With an Engraving.]

THE cancer uteri is one of the most dreadful diseases to which the female sex is exposed, and which is generally thought to frustrate the assistance of the healing art so much, that no other consolation can be given to the patient, but what religion affords her, and the hope of death, to put an end to the most insupportable pains with which the disease is attended. However, we find some remedies proposed against this disorder, and even instances are recorded of patients being cured by the internal use of different

different remedies; but whatever credit such cases may claim, I have not been so fortunate in my own practice; and in three cases of cancer uteri, that fell under my observation, I have been entirely disappointed in my hopes of cure by all possible remedies, rational as well as empirical. From this melancholy experience I was led to think, whether no help could be afforded from the operative surgery, in a disease where medical assistance is never crowned with success. The extirpation of the cancerous mammæ, so frequently executed with success, guided my ideas on the analogical extirpation of the uterus, an organ which is known to be in close connexion with the mammæ, that such an analogical conclusion might be excusable, even if our experience did not inform us of the possibility of such an operation. Not only in old but also in modern writers, we find cases of this operation noticed, of which, particularly, I shall only mention a case described by Professor WRISBERG, (Commentatio de uteri mox post partum naturalem resectione non lethale, &c. Gottingæ, 1787), in which the uterus was cut off by a rude ignorant midwife, who took the prolapsus uteri for a preternatural excrescence. The wound was afterwards healed with only the assistance of nature; and the person, whom I myself had an opportunity of examining twenty years after that accident, enjoyed tolerably good health. This case, however, seems to prove how little danger this operation is attended with, which I think could be safely undertaken, in case no adhesions of the diseased uterus to the neighbouring parts take place, which some physicians think to be always the case in cancer uteri, but which, however, is discredited by others.

The operation cannot be performed unless a prolapsus uteri is previously occasioned; and if it should not exist together with the cancer, as I have found it in one case, I think it a very essential point of the operation, to produce it by art, which is generally done without much difficulty, as the ligaments of the uterus are in most cases very much relaxed. But to make this operation more easy, I should advise to prepare the uterus during some weeks, by emollient injections with opium; and the parts being thus sufficiently relaxed, the attempt must be made for making a prolapsus uteri, as the first step in the whole operation. For this purpose I recommend the instrument A. (*see the plate*) which is made of good steel and *one* foot long; the branches are round and well polished, being shut in the manner of a pair of midwifery forceps; the upper

 end

end of each branch is provided with a knob surrounded with soft pads of leather: the handle is like that of a pair of scissars; the upper part is gently curved outwards, so as to leave a space of about one inch and a quarter, when the handle is shut.

In order to produce the prolapsus, the patient should be placed on a table covered with beds, so as to rest on the knees and the elbows, and the thighs must be drawn from one another to be able to introduce the instrument, which the operator is to do in the same way as when he brings a forceps through the orifice of the uterus. The instrument being shut, he is to put the two indices into the ring *x*, depressing the thumbs towards *u*, and the middle finger to *o*, and thus to keep the instrument shut. The operator is to make every day about twenty tractions, injecting from time to time an emollient decoction with opium, till he has gradually drawn down the uterus, while he endeavours to keep the vagina in its proper situation. When the prolapsus is in this manner effected, I recommend the curved knife B, to separate with a circular cut the vaginal portion and the neck of the uterus. The rest of the uterus should now be gradually drawn out with a pair of pincers, to tie the vessels of the vagina, and the remaining portion must be kept outwards, partly for preventing any blood getting into the abdomen, partly for applying the dressing proper for healing the wound.

To the Editors of the Medical and Physical Journal.

GENTLEMEN,

IN reading your Medical and Physical Journal, No. [illegible], I noticed Mr. Smith's sketch of an extraordinary thick cranium; and having lately had a patient with a fractured scull, (*see plate*) where the bone was remarkably thin, and the case altogether not a very common one, I beg leave to present you with it for publication. I have also enclosed the bones, joined together with wire.

I am, &c.

Bradford, Wilts,
Oct. 9, 1803.

W. F. ADYE.

WM. CROMWELL, aged 17, a pauper of this parish, on the 1st of August last, received a blow from the end of a trap-stick,

strap-stick, upon the os frontis, about two inches above the orbit of the left eye, which produced a fracture, with considerable depression.

The next morning the trephine was applied upon the superior part of the sound bone, and five depressed pieces of remarkably thin bone, (including a large portion of the orbit) were removed; a considerable hæmorrhagy attended the operation, proceeding from a wound of the brain, immediately under the most depressed part; this however subsided after a short time, by moderate pressure.

On the fourth day a fungus arose from the brain, increasing to the size of a large watch in the course of six days, having an opening in the middle, from whence brain was regularly discharged for nearly a week. Various astringents having been employed for some time, with very little effect, recourse was had to strong pressure, which gradually removed it, without producing any alarming symptoms.

During the first six weeks the patient was unable to open his left eye without shutting the right; but is now recovered in every respect.—The wound was quite healed, and the boy returned to his usual occupation, (that of a weaver) the first week in October.

Cases of Compound Fracture; *communicated by* Mr. S. Fisher, *Senior Surgeon to the Salisbury Infirmary.*

JAMES ALLEN, aged twelve years, was admitted into the Salisbury Infirmary on July [illegible], with a compound fracture of the thigh, and with considerable laceration. He had been attended by a surgeon in the neighbourhood, who had merely made an extension of the limb without examining the state of the fracture, or attempting to remove any splinters which might reasonably be expected to exist, as the accident was occasioned by a loaded waggon going over the limb. The irritation excited by the splintered bone occasioned such violent contractions of the muscles, that when the surgeon came every day to examine the limb he found it so much shortened, that he made fresh extensions daily. After being kept for two months in this state without any amendment, and his health visibly declining, he was sent to the Infirmary, (a distance of sixteen miles) in a common cart with only a pillow tied round the

 thigh

thigh. When he was admitted, I thought it most prudent to give him a few days to recover from the fatigue of the journey, and endeavoured to amend his health before any operation was attempted. About a week after, when he was somewhat recovered, I desired Mr. Wyche (who was my colleague at that time) to see him with me, that we might consult on what could be done. On the first appearance we were fearful that nothing less than amputation could give him any chance, but there were considerable objections to the operation, as the fracture was so high up that it was impossible to apply a tourniquet. On examining the limb, we found there was a large collection of matter which lay very deep, and the integuments very much thickened, the knee almost anchylosed, and the leg œdematous. I then determined to make a very free incision, beginning very high up, to ascertain the state of the fracture; on making the incision there was a very copious and fetid discharge with some pus, (upwards of a pint in quantity). On examining [illegible] with my finger, I found two large splinters entirely detached from the bone; these I removed with the forceps, and on measuring them, one proved to be two inches in length, the other three inches; I then found the inferior portion of the bone very jagged, and riding considerably over the superior portion, and that no extension made any alteration in it. I then continued my incision almost to the knee; and having freed the inferior portion of the bone from its muscular attachments, I removed a considerable portion of it (three inches in length) with a metacarpal saw. I dressed the parts with lint dipped in decoction of bark with a small proportion of tincture of myrrh in it, and applied the eighteen-tailed bandage. In a very few days the wound assumed a healthy appearance and the discharge lessened. He took the bark freely, and opiates occasionally, and went on very well for a fortnight, when he became feverish and restless. On examination I found a tumour just under the knee, which I immediately opened, and let out near a pint of fetid matter; I applied the bandage as tight as I could, beginning at the upper part, leaving the inferior wound open. The discharge ceased in a few days, and the wound healed gradually. He is perfectly well and can walk with the help of crutches, and has for these six weeks past.

Besides the above, I have had two other cases of compound fracture of the tibia, attended with considerable laceration; in both of which I was obliged to remove a portion of bone, (the one a man about thirty years of age) in which

which case I took off two inches of the tibia; he is now perfectly recovered, and can walk very well. The other a lad, where I took off about an inch and a half; he is in a fair way of doing well, but has had several splinters come away since. My reason for troubling you with this, is to prove what great exertions Nature is capable of making when properly assisted, and to warn practitioners in general not to be too precipitate in removing a limb, as that is a loss not to be repaired, more particularly as these accidents most frequently happen to those who are obliged to earn their bread by their labour, to whom such a loss must be of the most serious consequence.

December 7, 1803.

To the Editors of the Medical and Physical Journal.

Gentlemen,

THE following extract of a letter from Dr. Marshall, dated Lymington, 6 Dec. 1803, fully confirms an opinion which I advanced in the last Number of your Publication; and, from the importance of the subject to which it relates, I flatter myself you will insert it the first opportunity.

"Since my arrival here, I have been busy with the Cow-pox, having inoculated upwards of five hundred, principally of the poor, who have not had the Small-pox amongst them for the last twelve years.

"In this month's Medical Journal I observe a letter from Mr. Weston, of Jamaica, to you, is inserted; in which he says, he is 'obliged to acknowledge the lamentable fact, that in a temperature of 90, the vaccine matter loses its activity.'

"This, to me, appears a very extraordinary acknowledgment; for during the time that I was at Gibraltar, in August 1800, the temperature was never so low as 90, and frequently 96, during which time I never observed any particular difficulty in communicating infection more than in England; nor can I conceive any probable cause for its failure in Jamaica.

"Mr. Weston also says, he has 'ascertained, beyond cavil, that the negro habit is susceptible of the disease." Upon this point I should have supposed there could not

be two opinions. One of the first persons vaccinated on board the Endymion, in 1800, with matter furnished by you, was a negro; and his arm furnished the virus for our future inoculations.

"From my original memorandum, now before me, I find your observation upon the rapid progress of the disease in Negroes just; since the arm of this man yielded matter for inoculation on the third day.

"I am well convinced, that if proper precautions be taken, vaccine virus will not become effete in any climate. At Palermo, I used matter taken in Malta eighteen days before, with perfect success. The same matter, used at Naples three months after, still retained its virtue, though the temperature was frequently upwards of 100.

"Virus taken upon ivory or quill, wrapped in paper, and kept in a drawer, is, I believe, capable of being preserved as long as can be necessary in any climate."

To this valuable communication from Dr. Marshall, I beg leave to subjoin a few miscellaneous observations.

In my Treatise on the Cow-pox, p. 799, I stated, that Dr. Jenner had been requested by the Physicians and Surgeons who had presented him with a gold medal, to sit for his picture to Northcote. This was a mistake. It was the Medical Society of Plymouth, consisting exclusively of the resident physicians of Plymouth, Dock, and Storehouse, who gave this additional testimony of the high esteem in which they hold the discovery of Dr. Jenner.

The last, but not the least honour conferred on Dr. Jenner, is a Latin Ode on the subject of Vaccination, written by the celebrated Anstey, author of the New Bath Guide, and other excellent poems.

I have lately met with a case, which is, perhaps, unparalleled in the annals of inoculation; in which the sign of infection did not appear till the forty-sixth day. A very small, but genuine, vaccine vesicle then took place. The child has since been inoculated repeatedly with the most active matter, but to no purpose.

The subject in whom this remarkable circumstance occurred, is a child of Mr. Dust, a gun-maker, at Chelsea. There is reason to believe, that the effect of the vaccine virus was retarded by the counter-stimulus of a very large tetter on the shoulder of the opposite arm. This tetter was above three inches and a half in length, one inch and a half in breadth, and of long standing.

About

About a week after the insertion of vaccine virus, the tetter was more inflamed; but from that time it began to mend, and in a few weeks totally disappeared.

I am, &c.

New Street, Hanover Square,
December 14, 1803.

JOHN RING.

To the Editors of the Medical and Physical Journal.

Gentlemen,

THE vast utility of the Vaccine Inoculation, its safety and efficacy, are now so established, that I should not have solicited a space in your excellent Miscellany of next month for these few lines, had either my reading or other information furnished me with a fact similar to the subject of the subsequent remarks.

On September 10, I was sent for to visit the wife of N. Obey, of Rushmere, near this town. She had then sickened five days of the natural small-pox. She nursed at her breast a strong, florid child, seven months old. The pustules on the mother being numerous, I entertained some apprehensions for the safety of her offspring, both from its habit and age. I explained instantly to the parents the great probable advantage of vaccine inoculation, founded on the hope that the infant was not yet infected with the small-pox. Parental affection was soon persuaded to listen to a voice that promised deliverance from the threatened evil, and I was permited to pursue the plan I thought advisable for the infant's safety. Having luckily in my pocket some cow-pock matter, I inoculated both arms with it. On the fourth day I had the satisfaction to observe both arms had taken the infection. On the eighth day the efflorescence was complete, and the child apparently free from indisposition, having experienced no other inconvenience than very slight fever and trifling pain in the axilla.

During the whole time the child continued to suck, and to be sensible of little suffering or uneasiness from its complaint. On the ninth day, when the mother was still ill of the small-pox, the infant was perfectly well.

I am, &c.

Ipswich,
October 12, 1803.

JOHN MORGAN, Surgeon.

To Dr. BATTY.

DEAR SIR,

THE enclosed Case has been sent to me by a very sensible practitioner in the country, Mr. Blagden, surgeon, of Petworth, who wishes that it may be communicated to the public. It occurs, I believe, very rarely, is described with singular perspicuity, and I trust that you will think it not unworthy of a place in the Medical Journal.

Grosvenor Street, I am, &c.
Dec. 5, 1803. M. BAILLIE.

ON the 28th of August last, I attended the wife of a reputable person in this neighbourhood, in her second labor. The first, which happened four years before, was, from the smallness of the inferior aperture of the pelvis, an extremely laborious one; the present was less so, though the last five or six pains were unusually violent: however, the labor was in no other respect uncommon, except that the patient spoke of a greater degree of suffering not only during but also between those pains in the right, than in the left side of the uterus, although, in the last months of utero-gestation, the abdomen had been more full on the left than on the right side. The placenta was expelled with ease.

After waiting the usual time I returned home, about one in the morning; but was called again, in haste, in less than half an hour. The patient was laboring under violent and unceasing bearing-down pain, and strongly impressed with the idea that she had another child. On examination, I found a monstrous swelling of the right labium, extending itself to the perinæum. I endeavoured, by fomentations and the repeated use of opiates, to give the poor woman some ease, but without the smallest success; the size of the tumour increased till it equalled a child's head, and the pain likewise increased till it exceeded every degree of it which I had before witnessed, and might be truly called torture.

In less than three hours from the commencement of this affection, the tumour began to grow discoloured, and within another hour the most prominent part of it assumed a livid hue. After reflecting with all the coolness of which so unusual and alarming a situation admitted, it occurred to me that the cause of all this distress could be no other than

than extravasated blood from some vessel or vessels which had given way, and that, by making a free opening, I should stand some chance of diminishing my patient's sufferings, and, possibly, of putting a stop to the mischief, which was every hour growing more extensive and threatening. Impressed with this idea, I proposed the operation, to which she readily assented, and, soon after five in the morning, I made a longitudinal incision with a lancet, nearly five inches in extent, in the most prominent part of the tumour. On passing a finger between the edges of the incision, a good deal of coagulated blood was perceived, which was broken down and extracted; immediately after which there rushed out a pretty large quantity in a fluid state; this stream, however, was not considerable enough to occasion faintness, and, indeed, very soon became trifling. As soon as the opening was made, the patient expressed a sense of relief and, in about fifteen minutes, fell into a dose; she continued, with some intermissions, in a dosing state till about half past nine, when the tumour was much diminished, particularly at its upper part. At 2 P. M. the tumour was still less, the patient tolerably easy, and able to bear her legs closed.

The discolouration of the loose cellular membrane had now exactly the appearance of ecchymosis from contusion.

The use of the common fomentation was directed every six hours, the unguentum ceræ, spread on lint, and a bread and milk poultice. Matters went on so well, that on the 3d of September the tumour and pain were inconsiderable; but as there was evidently extravasated blood still within the tumour, and the air of the chamber was grown very offensive, a poultice, made with small beer and fine oatmeal, with the addition of a large spoon full of yeast, was applied; and renewed every three hours. Coagula came away in every poultice, but after four days no more were visible; the edges of the wound had likewise thrown off all their sloughs, and looked clean and healthy; and the air of the chamber had lost its offensiveness. From this time the unguentum ceræ only was made use of as dressing.

A clyster was at first, administered every day; afterwards every other day. Although the urine had frequently drizzled away, and apparently in large quantities, yet the distension of the bladder became so great on the 1st of September, that it appeared necessary to introduce the catheter, when nearly five pints were drawn off; on the following day a full quart was again drawn off; but, on the

third,

third, she was able to raise herself on her knees, and to pass a fair quantity.

The woman complained of great pain in both legs from the commencement of the tumour, and it gradually went off as the tumour subsided.

The milk-fever was moderate, and every thing relative to the lochial discharge, as well as the breasts, perfectly natural, and in no respect different from what it generally is.

On the sixth day she bore being removed to a couch whilst her bed was made; and, on the twenty-first, the wound was completely healed, and the labium reduced to its natural size and appearance.

Observations on the Digestive Power of the Human Stomach, *by* J. Helm; *communicated by* Dr. Noehden.

THE author having the care of a woman, 58 years of age, who suffered under a remarkable disease of the stomach, took the opportunity of making several observations on the action of the stomach on different aliments. The subject of his observations had always enjoyed a good state of health, till she was married in her thirty-third year of age, when she was frequently attacked with cholics, vomitings, a redness, a burning and pungent sensation in the region of the stomach, which symptoms generally returned every third week, but were less violent in time of pregnancy. A blister, applied on the painful place, relieved her greatly, and during the space of one year, she found herself free from pain. After this time, she became pregnant, and about the middle of this state, she observed a tumour in the region of the stomach, of the size of a walnut, which had the same colour as the skin, and was painful. After the delivery, those symptoms recurred with greater violence, and were almost insupportable in rainy weather. Appetite good. The tumour began gradually to increase and to become hard till it reached down to the navel, and an anasarca supervened. Thus it remained till the next year, when the tumour being accidentally pressed, broke open, and about a pound of yellow purulent matter issued, when her sufferings diminished, together with the anasarca. The opening was of the size of a small pea, and small particles

ticles of aliments came forth from it. Mr. H. being sent for about this time, found the patient weak and emaciated; the opening gradually increased, so as to let a finger pass into the stomach; a prolapsus of the opposite side of the stomach supervened, and a catheter could be introduced as far as the pylorus, without either much incommoding the patient, or causing vomition. In this state, the patient remained five years, and during this time the author made the following observations. The food of the patient was extremely simple, wine causing much pain. Some hours after her meal, she had violent pains in the back, reaching thence to the left side, and particularly a burning sensation about the edges of the opening, and she was generally obliged to loosen the bandage, and to let the contents of the stomach issue, while she relieved the pain by drinking milk. When the weather was fine, she had neither hunger nor thirst, and sometimes fasted for about thirty hours. The taking of sour krout or pickled cucumbers, sallad, and sour cherries or apples, gave her the least pain, but any flatulent food she could not keep above an hour in her stomach. In bad weather, she felt a great deal of pain, and the prolapsus increased. Any violent motion would immediately make a good deal of gall run into the stomach, from which it issued through the external opening. Milk coagulated instantly after it came into the stomach, either through the mouth or the opening, which however arrived a little later, when the stomach had been washed with water; asses milk coagulated latest of all. The patient was never obliged to bring out any spittle, nor could she be made to vomit by a mechanical irritation. Stools followed regularly every second or third day; urine was yellowish and cloudy; pulse 80—85 in a minute, and after the taking of spirits, it became 112—120 in a minute, and then the food issued with force out of the opening. A solution of one grain of emetic tartar being brought into the stomach with a syringe, caused much trouble, and a burning sensation, and the peristaltic motion of the stomach could be clearly seen. The pains were relieved by milk; and after three hours, she had four watery stools.

The results of other experiments with aliments and medicines are as follow: White bread of all sorts was more easily digestible than brown or black bread. Peas and lentiles were more digestible than beans. Pears and pine-apples more than apples. Peaches, apricots, plumbs and figs were easily digestible. Chesnuts, nuts, and sweet almonds were almost indigestible, with and without the epidermis.

epidermis. Turnips and potatoes were very digestible. Sallad and different sorts of cabbages, prepared with vinegar, were easily digestible. All sorts of champignons were difficult to digest. Veal, lamb's flesh, and pork were more easily digestible than beef, mutton, and flesh of a wild boar; not so easily as from a hare or other venison. Chickens, pigeons, &c. were more easy to digest than geese or duck's flesh. The intestines of animals were easy to digest; ham was easily digestible; all sorts of fish were soon digested. Sixty grains of Peruvian bark had lost, after having remained from six to ten hours in the stomach, ten grains; the extracts of bark, cicuta, aconitum, had lost in the same time, twenty grains; gummi guaiacum, limatura martis, and antimonium crudum, from ten to twelve grains. Castoreum, wax, assafœtida, and rusty iron filings remained insoluble; ten grains of camphor, were within six to twenty-four hours, diminished from four to six grains. Gum arabic was quite dissolved; sixty grains of g. ammoniac. lost often, in ten or twelve hours, from eighteen to twenty grains. The weight of magnesia usta was increased twenty grains in the same time, and shewed no more any effervescence with acids. Flores sulphuris alone were insoluble, but by the addition of a neutral salt they became a little soluble.

On the Functions of the Lungs; *communicated by our Correspondent at Paris.*

A Paper has been read at the Medical Society at Montpelier, which has for its object to prove, that the function of the lungs is not to generate heat nor to carry off heat, as has been supposed, but for the purpose of introducing oxygen. The author, Dr. Thomas, considers the experiments of Godwin sufficiently accurate; and he says, that according to them, the quantity of heat combined with oxygen, taken in by respiration, is too small to account for the temperature of animals; he thinks that we should ascertain well before we determine how this heat, which may be disengaged from the oxygen inspired, is distributed through the body, to be certain that the caloric does not accompany the oxygen into the body. But let us suppose, says the author, that the oxygen does disengage its heat at the moment of fixing in the lungs, what should be the consequence?

1st. Says he, the veinous blood does not contain carbonic

bonic acid in a state of gas; but he maintains that it does exist in a fixed state; the heat therefore necessary to give this carbon a gaeous form, must be taken into the account.

2d. Expiration carries off a quantity of vapour, but he does not admit that this vapour is the result of a combination in the lungs, for besides the difficulty of assigning the source of the hydrogen, there would be a still greater difficulty to account for that of oxygen, which we know to be in the proportion of 85 to 15. He does not speak of the consequences of that great degree of heat which must arise from the combustion of such a quantity of oxygen. He considers the evaporation from the lungs to be in itself more than enough to consume all the heat that could be disengaged from fifteen parts of oxygen; but as well as the heat necessary to carry off the humidity of the lungs, the cold air taken in, absorbs a considerable quantity.

3d. It is impossible to conceive that when we confine 200 cubic inches of atmospheric air, according to the calculation of Godwin, so small a degree of heat should be developped; or when we inspire pure oxygen, that the only sensation we perceive is that of a cooling, refreshing feel. And further, observes the author, if chemical effects out of the body can be compared to what takes place within, we may find an analogous circumstance in support of the opinion advanced. Oxygen, says he, brought in contact with blood in a vessel, produces no sensible heat. Analogy would furnish many other reasons if they were admissible in an inquiry of this nature. The author brings many arguments, unnecessary to notice, in order to prove that the lungs are not intended as a refrigerating organ to the system. To determine the use of the lungs two considerations present themselves:

First.—The author thinks that the lungs may be useful in disengaging the blood of carbon; but this principle does not present itself pure in the blood in the lungs, for as there are 11 out of 100 parts of this acid in the air expired, and as carbon in acidifying absorbs twice its weight of oxygen, the inspired oxygen would be insufficient, even supposing that it acted all on the carbon: the same objections hold against carbon being dissolved in hydrogen. The author looks on carbon in the blood to be in an acid state, not in the state of oxyd, as M. Chaussier found that the oxyd of carbon gave a red colour to the blood.

A second effect, less equivocal than the former, is that produced by oxygen on the blood in the lungs; the author mentions

mentions the many proofs of this fact, which are within the knowledge of most physiologists. The use of the introduction of this principle, he considers to be principally intended for revivifying the actions of the animals. Birds that take long flight, and require great exertion, take into their capacious lungs great stores of air; many insects, whose temperature is low, could not require for the support of their heat so extensive an apparatus as they have.

And lastly, the author observes, that the extent of the lungs in insects will be found to bear a very accurate proportion to the quantity of activity which they enjoy.

The author concludes by the following corrollaries:—

1st. Respiration cannot be assimilated to ordinary combustion, it is a real oxydation.

2d. The object of this function cannot be to support animal heat.

3d. The cause of animal heat is owing to a function purely vital.

4th. It is not to cool the body.

5th. The disengaging a certain portion of carbonic acid, the fixation of oxygen in the blood, and the support of irritability, are the direct effects of respiration.

To the Editors of the Medical and Physical Journal.

GENTLEMEN,

THE attention of the profession having been particularly called of late to the subject of crural Hernia, by two very valuable publications, viz. Mr. Hey's Practical Observations in Surgery, and Dr. Monro's, (jun.) Observations on Crural Hernia, I am induced to send you some Remarks relating to this disease; and will thank you to give them a place in the next Number of your useful Journal.

I am, &c.

Manchester, Nov. 20, 1803. JOHN HULL.

OBSERVATIONS ON THE CRURAL HERNIA.

The Crural Hernia, or Merocele, is generally considered as a protrusion, or descent of a portion of the contents of the abdomen, included in a sac derived from an elongation of

of the peritonæum, under the crural arch. By a few authors of high reputation, this genus of hernia has been allotted a more extensive signification, being made to comprehend other ruptures, that appear in the bend of the thigh, in which the protruded viscus passes *over* the crural arch, through a separation of the fibres of the transverse and internal oblique muscles and of the aponeurosis of the external oblique muscle of the abdomen. Chopart and Dessault,* as far as I have been able to determine, are the first writers who have noticed the latter kind of hernia; and it has since been admitted as a species of crural hernia by Richter† and Callisen.‡ None of the above mentioned authors have given a detailed account or case of this hernia as passing over the crural arch, so that it is not easy to determine whether it be a conjectural or real species. If such a hernia have been observed, I should think it may with more propriety be referred to another genus; to the inguinal hernia, if it accompany the spermatic vessels, or round ligament of the womb, in their egress from the abdomen; and to the ventral hernia, if the protrusion take place in a point where no vessels are passing out of the abdomen. I shall therefore take no further notice of it in this paper.

The true crural hernia is supposed by Garengeot to have been known to Paul and Barbette. Sabatier also considers the latter as acquainted with it. However this may be, its existence appears to me to have been first properly established by Verheyen, professor of Anatomy at Louvain, in the year 1694, from the dissection of a soldier, who died in the hospital of that city from an incarcerated merocele. The particular circumstances of this case may be seen in Palfyn's Anatomie Chirurg. P. ii. p. 73. Ed. 3.

A considerable diversity of opinion has prevailed among Anatomists and Surgeons with respect to, 1st. the relative situation of the crural hernia to the crural vessels; 2dly,

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* La hernie située au pli de la cuisse se nomme crurale; les viscères passent derrière le ligament de Fallope, &c.—On sortent au-dessus de ce ligament par un écartement des fibres des muscles transverse, oblique interne & de l'aponeurose de l'oblique externe. *Traite des Maladies Chirurg.* Tom. 2, p. 205.

† "Zuweilen liegt dieser bruch gar nicht unter dem Poupartschen bande, sondern er tritt durch eine spalte in den muskelfibern über dem Poupartschen bande." *Abhandlung von den Brüchen*, p. 650.

‡ "Hernia cruralis sub margine ligamenti Fallopii in spatio, vasis iliacis decurrentibus dicato, interdum supra ligamentum Fallopii per diductas fibras aponeuroticas, exoritur." *Syst. Chir. Hodiernæ*, T. ii. sect. 748.

the part which produces the stricture, when it is incarcerated; and, 3dly, the proper method of removing the stricture by a chirurgical operation. The remarks which I have to offer at present, relate principally to these three circumstances. I think it necessary to premise a concise description of the crural arch, and to notice the course of the different blood-vessels liable to be wounded by the division of the arch, because a good deal of confusion and some apparent contradictions are met with in the writings upon this subject, for want of precision in the employment of terms.

The crural arch, which, from the real or supposed discoverer of it, has been named the *ligament of Fallopius* or *Poupart*; from its situation and texture the *inguinal and crural ligament*, the *doubled tendon of the external oblique muscle, &c.* is rather irregular in its form and low in proportion to its extent. Its external extremity or foot, is attached to the superior and anterior spinous process of the os ilium; its internal extremity to the spinous process and part of the crista of the os pubis; hence it is considerably higher at its external than its internal extremity. By many anatomists this arch is stated to be tendinous, and is considered as formed by the duplicature of the lower aponeurotic border of the external oblique muscle only. By others it is considered as a distinct ligament, to which the lower border of the external oblique muscle is attached. This dispute about the tendinous or ligamentous nature of the arch may, I apprehend, be settled by the following observation made by Soemerring. "Certe etiam tendines nil sunt, nisi ligamenta musculorum." *De Corporis Humani Fabrica.*" Tom. iii. sect. 73.

The crural arch has a groove, or canal, along its upper surface, which is deeper nearer to its insertion into the os pubis, and is formed by the tendon, or ligament, being doubled backwards and upwards. The anterior margin of the arch, or that which is turned towards the integuments, is thicker and rounded; the posterior margin, which is turned towards the peritonæum, is thinner and sharper to the feel.

Under the crural arch are situated the external iliac and great psoas muscles, the anterior crural nerves, the external iliac blood-vessels, and the lymphatics of the lower extremity.

Nearly in the middle of the arch the external iliac artery passes to the thigh, and there takes the name of the crural artery. The iliac vein is situated a little more inwards than the artery. The space between the iliac artery and

and the outer extremity of the arch is completely filled by the iliacus internus and psoas magnus muscles and the anterior crural nerves, so that in the natural state of the parts no aperture is met with there. But that part of the arch, which is situated more inwards than the iliac blood-vessels, is not equally filled, a small aperture being always found between the iliac vein and the internal foot of the arch. This aperture, to which Gimbernat has very properly given the name of the *crural ring*, is larger in the female than in the male. It is bounded above by the crural arch and below by the os pubis. Towards the abdomen it is covered only by the peritoneum; hence a portion of omentum, intestine, &c. may pass through this aperture to the thigh, and carrying the peritoneum along with it, may form the crural hernia. And we can imitate this hernia pretty well after opening the abdomen, by passing a finger from thence through the crural ring to the thigh. Below, or towards the thigh, this ring is covered by the fascia lata, so that the hernial sac cannot be brought into view till the fascia has been divided. The fascia lata being intimately connected with the crural arch, gives it a considerable degree of tension when the thigh is extended, and relaxes it considerably when the thigh is bent to a right angle with the trunk. The posterior margin of the crural arch, which has been mentioned above as feeling sharp to the finger, is much less distinct when the thigh is bent; a circumstance necessary to be attended to, when we employ the taxis, as it then presents less resistance to the return of the prolapsed viscus.

For an external view of the crural arch, the reader is referred to Mr. Ch. Bell's System of Dissections, plates 13 and 14, and to Dr. Monro's (jun.) plate 5, fig. 1. A good internal view of the crural arch and ring is given by Dr. Monro, (jun.) in plate 3, fig. 1, as it appears in the female subject; and in plate 4, fig. 2, as it appears in the male. It was the more necessary to give figures of these parts in both sexes, as the Doctor has discovered a material difference in the male and female, the crural ring being smaller and the posterior part of the arch being much broader in the former, especially at and near its insertion into the os pubis.

The epigastric artery arises from the external iliac, a little before the latter passes under the crural arch. It in general first passes down a little way, and then passing obliquely upwards and inwards along the outer and upper part of the crural ring, continues its course behind the in-

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ternal oblique and transverse muscles, but before the peritoneum, till it reaches the posterior side of the rectus abdominis. Sometimes, however, it passes immediately upwards and inwards, thus keeping at a greater distance from the crural ring. See Monro's Plates, 6 and 5.

The spermatic artery in the male, in its course from the abdomen to the testicle, first passes on the outside of the epigastric artery, that is, between it and the iliac artery, and then crosses the epigastric most commonly directly over the crural ring. It passes out of the abdomen under the inferior margin of the transverse muscle, and through the lower margin of the internal oblique. The spermatic artery and vein being joined by the vas deferens, and furnished with a muscular covering, named the cremaster, chiefly from the internal oblique, form the spermatic cord, which passes downwards for about two inches between the internal and external oblique muscles in the groove on the upper part of the crural arch, before it arrives at the inguinal ring. Hence it appears, that the spermatic vessels are much more superficially seated than the epigastric artery, after they have crossed it, and may be exposed by an incision made through the lower part of the external oblique only, just above the crural arch. This is a circumstance deserving particular attention.

The round ligament of the womb, in the female, passes out of the abdomen, and crosses the epigastric artery in the same manner as the spermatic vessels do in the male; it afterwards descends in the same way along the canal in the upper part of the crural arch to the ring of the external oblique muscle. See Monro's plates, 6 and 5.

When a hernia is formed in the male by the descent of a portion of one or more of the abdominal viscera through the crural ring, the epigastric artery passes along the outer and upper side of the neck of the sac, and is liable to be wounded by an incision made upwards and outwards thro' the crural ring; the spermatic artery passes along the upper and inner side of the neck of the sac, and is liable to be divided if the ring be cut upwards and inwards; and both these arteries, when they cross each other directly over the neck of the sac, (which is most commonly the case) are liable to be wounded by cutting through the crural ring directly upwards. These arteries sometimes cross each other a little on the outside of the sac, in which case the spermatic cord only will be divided by cutting through the crural ring directly upwards, the epigastric artery being situated beyond the reach of the knife.

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In the female the above observations will apply, substituting the round ligament of the womb for the spermatic vessels. See Monro's plates, 6 and 5.

The division of the epigastric artery in the operation for the crural hernia, has, in various instances, occasioned a fatal hæmorrhage. And as it has always been found extremely difficult to tie this artery, we should take great care to avoid wounding it.

The division of the spermatic cord will also produce a dangerous hæmorrhage, and, though this should be restrained, the testicle of that side of the body may be rendered useless by the division of the spermatic artery or the vas deferens. It is therefore of great consequence that the spermatic cord should not be wounded in the operation for the crural hernia.

The division of both the epigastric artery and the spermatic cord, which may happen when the crural arch is cut through directly under the point where these vessels cross each other, must necessarily prove still more embarrassing to the operator.

In operating upon the female, the epigastric artery is principally deserving of attention, because the division of the round ligament of the womb will not be attended with any very serious consequences, especially in women beyond the period of child-bearing.

In the usual distribution of the blood-vessels, the arteria obturatoria arises from the iliaca interna, or some of its branches, and passes to the foramen thyroideum, quite out of the reach of the knife; but, in some cases, this artery is so situated as to be liable to be wounded in dividing the crural arch: for it sometimes arises from the iliaca externa by one common trunk with the epigastric artery; and when this trunk is long, the arteria obturatoria has been found passing first along the upper and then on the inside of the neck of the hernial sac, so as almost to surround it. Mr. Thompson, of Edinburgh, has observed this course of the artery in six out of ten preparations which he had examined, and considers it as an insuperable objection to the mode of operating in crural hernia proposed by Gimbernat, (see Monro, jun. p. 66.) When the common trunk of the arteria epigastrica and obturatoria is short, the latter is observed passing down on the outside of the neck of the sac, so as not to be in danger of being wounded. See Monro's plate 4, f. 1.

§ 1. *Of the Situation of the Crural Hernia, with respect to the Crural Blood-vessels.*

Several authors of eminence, among whom we may mention Chopart and Dessault, Richter, Mr. B. Bell, and Herin, are of opinion that the crural hernia, though more commonly placed on the inside of the crural vessels, is sometimes situated immediately before them, and even on the outside of them, or nearer the iliac extremity of the crural arch.

Gimbernat, on the other hand, contends, that this hernia is always situated on the inside of the crural vessels, or nearer the symphysis pubis; and Dr. Monro, jun. seems to agree with him.

I have not met with any case recorded, in which the crural hernia was originally situated on the outside of the crural artery; and though I would not venture to deny the possibility of such an occurrence, yet I should not expect to find this hernia in any other situation than on the inside of the crural vessels (protruded through the crural ring), when it first takes place, or whilst it continues of small size. In all the cases of crural hernia, which have fallen under my observation, the size of the tumor was from that of a hazel nut to that of a walnut, except in one, which I attended some years since with Mr. Nanfan. In this instance the tumor was nearly as large as the head of a new born child, and occupied almost the whole of the superior and anterior part of the thigh. It had been many years in an irreducible state, and when I was called in, the integuments covering the tumor were highly inflamed, and a gangrene had taken place in the centre, to a considerable extent. The hernial sac was not laid open by the separation of the slough, and the old man, after some time, got well. He is since dead, and I regret much that the opportunity of examining this hernia by dissection was lost. As but few cases are recorded, wherein the crural hernia has attained a large size, it may not be improper to state here, that Le Dran has related a case, in which the hernial sac was eight inches in circumference, and three inches in depth; and that M. de la Faye, in his Notes to Dionis's *Cours d' Opérations de Chirurgie*, p. 339. ed. 4. Paris 1740, has asserted, that this hernia has been known to extend to the middle of the thigh. In these rare cases, where the hernia, from its bulk, is necessarily found situated before and on the outside, as well as on the inside, of the crural vessels, I think it highly probable, that the descent

descent of bowel first took place through the crural ring on the inside of the large blood-vessels, and that the ring had gradually yielded on the outside, so as to allow the hernia to extend laterally in that direction. We know that the inguinal ring has, in some instances, been so far dilated as to allow three fingers, or more, to pass through it with ease; and Le Dran found, in the case mentioned above, that the Fallopian ligament had yielded so much, that one might almost thrust four fingers, with the teguments, underneath it. *Obs. de Chirurg.* T. ii. Observ. 58. If this opinion be correct, it will also follow, that the epigastric artery, and spermatic cord, or round ligament of the womb, according to the sex of the patient, will be carried outwards with the hernia, and that the epigastric artery will be still situated on the outside of the neck of the sac, and liable to be wounded by making the incision of the arch upwards and outwards.

§ 2. *Of the Situation of the Stricture in the incarcerated Crural Hernia.*

It is unquestionably of the greatest importance to an operator, to know in what different ways and situations the stricture may be formed in crural hernia; otherwise he may be liable to much embarrassment. He may also be led to divide a part unnecessarily, or may leave the part undivided, which really produces the stricture. In the latter case it is obvious that the operation will prove of no advantage to the patient.

Gimbernat tells us, that it is the thin posterior border of the crural arch "which always forms the strangulation."

Many writers consider the rounded anterior margin of the crural arch, as being frequently the seat of the stricture.

By Günz, Bertrandi, Richter, * Callisen, and Arneman, it is stated, that the stricture is sometimes produced by the fibres passing from the fascia lata of the thigh into the crural arch.

Mr. Hey, of Leeds, has asserted very lately, that the stricture is not caused by Poupart's ligament, but by another part, situated three-eighths of an inch below Pou-

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* Es scheint, dass zuweilen bloss die flechsenfasern, die aus der fascia lata ins Poupartsche bandgehen, die ursache der einklemmung sind; wenigstens hat man gesehen, (Günz, Bertrandi) dass sich der bruch so gleich zurück bringen liess, als diese fasern durchschnitten waren. *Anfangsgründe der Wundarzneykunst.* B. 5. § 530.

part's ligament, and which, by way of distinction, he has named the *femoral* ligament.

It has been long ascertained, that the stricture, in crural hernia, may be occasioned by the hard and contracted state of the neck of the sac. Le Dran, in the year 1726, performed the operation for this hernia in a male, and found the strangulation occasioned by the neck of the sac. "He says, "Je m'apperçus aussi-tôt après, que ce n'étoit pas le ligament, qui faisoit le plus fort étranglement & que c'étoit l'entrée du sac, qui, ayant été long-temps comprimée par la pelotte du brayer, s'étoit retrecie. Alors y portant mon doigt, je sentis, que ce sac ressembloit à une bourse fermée & que son entrée seule étoit capable d'empêcher la reduction des parties, tant elle étoit étroite." *Observ. de Chir.* Tome ii. p. 6. He also opened the body of another man, in the same year, and found the strangulation occasioned by the neck of the sac, which, with its contents, had been returned into the abdomen. *Ibid.* p. 14. And Dr. Monro has mentioned a case, that occurred to him in the year 1782, in which a small portion of the ilium was strangulated by a straitness and thickening of the neck of the sac. *Description of all the Bursæ Mucosæ, &c.* p. 49.

And Mr. Cline, in his valuable lectures on Hernia, states, that septa, or partitions, are occasionally found in the hernial sac below its neck, by which a stricture may be induced; and shews a preparation of a bubonocele, with three of these septa formed within the sac. I do not know that any of these septa have hitherto been observed in the sac of a crural hernia; but they may be regarded as a possible cause of strangulation in this genus of hernia.

§ 3. *Of the means proposed and employed for removing the Stricture in incarcerated Crural Hernia.*

The division of the fascia lata, where it lies over the hernial sac, has, in some instances, enabled the operator to return the protruded parts, without cutting or dilating the crural arch. It may therefore be worth while to try this method before we undertake to divide the arch; but in general, I believe, it will prove insufficient. The manner of dividing the neck of the hernial sac, when this is the seat of the stricture, has been very ably pointed out by Dr. Monro, sen. and will be considered hereafter, when I come to deliver my opinion on the best method of per-

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forming the operation, under the different circumstances that may occur.

The means proposed for removing the stricture produced by the crural arch, which is by far the most frequent cause of strangulation in the hernia under consideration, will now be examined. These may be referred to two heads, viz. the *dilatation* and the *incision* of the arch.

1st. In consequence of the danger arising from wounding the epigastric artery and spermatic cord in cutting the crural arch, the mere dilatation of it has been recommended, and two instruments have been invented for the purpose; a curved levator, or blunt hook, by M. Arnaud; a dilatator, with two branches, somewhat in the form of a gorget, by M. Le Blanc. The attempt to dilate the crural arch, is disapproved of by Mr. B. Bell, and by Gimbernat; but recommended by Chopart and Dessault, Richter, Callisen and Arneman. Richter, indeed, is of opinion, that a surgeon is not justified in cutting the crural arch, before he has tried to dilate it by Arnaud's hook, or Le Blanc's dilator.

I have not tried either of these instruments, and though I should not expect much advantage from the use of them, I do not see any particular objection to making an attempt to dilate the crural arch, provided care be taken not to injure the subjacent parts. The hook appears to me to be the preferable instrument, as it affects the arch only; whilst the dilator can scarcely be managed, so as not to injure the protruded parts, or crural vessels.

2d. With respect to the *division* of the crural arch, authors in general are agreed, that the *extent* of it should be no greater than is necessary to allow the return of the protruded viscus, or viscera. They differ, however, very much as to the *part* of the arch, which ought to be divided, the *direction* in which the division ought to be made, and the *manner* of executing it.

In giving an account of the opinions of the different systematic and practical writers upon this subject, it may be attended with some advantage to refer them to the six following classes.

The 1st, comprehending those writers who have not distinctly pointed out the particular direction in which the division of the arch ought to be made, as Garengeot, Heister, Pott, &c.

The 2d, comprehending those who direct the incision to be made upwards and outwards, as Sharp.

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The 3d, comprehending those who direct the incision to be made upwards and inwards; *e. g.* Le Dran, &c.

The 4th, comprehending those who direct the incision to be made straight across, or directly upwards, as Dr. Monro, &c.

The 5th, comprehending those who direct the incision to be made directly inwards, where the posterior margin of the arch is inserted into the os pubis, as Gimbernat and Latta.

The 6th, comprehending those who are of opinion, that the division of the arch is to be made in different directions, according as the hernia is differently situated with respect to the crural vessels, as Chopart and Desault, Richter, Lassus, &c.

Upon the whole, however, it will be found more convenient to give their opinions, as nearly as I well can, in a chronological order; and this will be done as concisely as possible.

Garengeot is the first author, whom I have hitherto met with, that has published cases of the operation for the crural hernia. He informs us that he had seen the wound of a woman dressed in July 1718, whom Mr. Petit had operated upon with success, without opening the hernial sac; and he has related two cases, which occurred to himself in the years 1720 and 1728. In the former of these, a winged director was passed under the crural arch, and the bistory was scarcely introduced into the groove of the director, before the arch was relaxed, and the intestine returned spontaneously.—*Traité des Opérations de Chirurgie.* Tome i. p. 28. Ed. 2. Paris 1731. 12mo. *Memoires de l'Acad. Roy. de Chir.* Tome ii. p. 457. 12mo.

2. Heister is still less explicit than Garengeot. He merely says, " Ampliari paululum foramen illud, unde intestina proruperunt, oportet.' *Inst. Chir.* Pars 2. p. 820. Amstelad. 1739, 4to.

3. Le Dran directs us to cut the crural arch, by carrying the incision obliquely towards the linea alba, and to make it very small, because the epigastric artery is near. *Traité des Oper. de Chir.* Paris 1742.

4. Platner gives no direction whatever for the division of the crural arch.—*Inst. Chir. Rat.* § 849, 8vo. Lips. 1745.

5. Sharp, both in his Treatise on the Operations of Surgery, and in his Critical Inquiry, directs the crural arch to be cut obliquely outwards, as the spermatic vessels will thus be avoided. He allows that in this way the epigastric artery may be divided; but he thinks this accident ought

ought not to embarrass an operator, as it may *instantly* be taken up by the needle.

6. Pott states, that if the incision of the ligament be made of any length, let it be made in whatever part it may, the risque will be great of wounding either the spermatic cord, or the epigastric artery. He seems to depend too much on our being able to return the contents of the hernial sac without dividing the crural arch, "as there is a considerable space between the os ilium and the os pubis, to manage such reduction in."—He says, it is not so easy to take up the epigastric artery as to direct it to be done; but observes, that the spermatic cord is certainly more to be regarded than it. He merely directs us, if the division of the crural arch be unavoidable, to be particularly careful to keep the extremity of the probe-pointed knife within the end of the fore-finger, and to make as small an incision as may be necessary.—*Chirurgical Works,* vol. 2, p. 153, Lond. 1783, 8vo.

It would appear that Pott did not write from observation, in directing the point of the knife to be kept within the end of the finger, and that he was not very well acquainted with the anatomy of the crural arch, from his declaration, relative to the space for managing the reduction in.

[To be continued.]

To the Editors of the Medical and Physical Journal.

GENTLEMEN,

THE advocates for medical improvement, cannot but lament that the well-earned reputation of *digitalis,* for its general remedial power in the early, or curable, stages of pulmonary consumption, should be called in question by an experience, much too limitted to justify even a suspicion, much less an unqualified attack on its admitted efficacy.

My allusion is to the *two cases* detailed by Mr. Earnest, in the last number of your Journal,* in which, that very active medicine is stated to have been almost inert, or at

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* Page 554—7.

least

least to have had no salutary influence whatever. The tincture of digitalis, as proposed by the judicious Dr. Maclean, was the preparation employed, which tincture appears to possess the virtues of the plant in the utmost degree of concentration. The medicine then, in a vast majority of cases, must have been impressively active; and, agreeably to the observation of others, in no small proportion beneficially so. Mr. Earnest's cases, therefore, do not fairly impeach the salutary properties of the medicine, but denote only, that either an unconquered peculiarity, or a positive incurability, placed them out of relief out of the reach either of that or any other remedy. In what morbid relations the cases stood with the acknowledged [illegible] of digitalis, is not stated, but might have been some[illegible] elucidated by an examination of the lungs after death.

It has scarcely been pretended, that digitalis ever cured the last stage of pulmonary consumption; it would savour too much of the daring declamation of quackery, to insist that such a necessarily, deadly, and actually dying state of life, could possibly be restored to health.

If the beneficial agency of a medicine be determinable by its occasional failure, no an article in the materia medica would abide such an estimate of its virtue. Even Peruvian bark, opium, mercury, and antimony, would shrink from such a test of infallibility.

Digitalis has deservedly taken its station in the list of the most active remedies; nor can it be degraded from its just rank by an inadequate trial of its powers. After what has been affirmed of its salutary influence in pulmonary consumption, *two hundred*, instead of *two cases*, should have been pressed into the service of its opposition, to have warranted assailing its high credit. Nor would my scepticism in its inefficacy have been persuaded; even on the authority of two hundred adverse cases, if the trial had not been extended beyond three weeks.

A much longer period is necessary to perform the mighty work of curing pulmonary consumption; and, indeed, when that threatening disorder is curable, it has been found that the best efforts of digitalis require to be urged, and sustained, from at least one month to three, to insure a permanent recovery.

Peculiar and inscrutable irrelevancy of temperament to specific medicinal efficiency, does not preclude the possibility of its being highly influential in more congenial circumstances of excitability; it amounts to nothing more than

than an exception to a general rule, and is of no practical authority.

The experienced observer of the salutary agency of digitalis in pulmonary consumption, has not to learn that cases might, and do occur, in which that medicine is of no avail in that disease; but these instances are so abundantly counterbalanced by its successful operation, as to reject them from all calculation, to the disparagement of its real efficacy.

My own experience has furnished me with many instances in which digitalis was either inert, or manifestly injurious; but these presented amidst a groupe of salutary effects, that enabled me to assign to the medicine, a degree of curative power, which none equal in pulmonary consumption, and but few exceed in any other disorder.

Mr. Earnest's humanity, science, and zeal for medical improvement, should induce him to rejudge his cases, and suspend his inference to the disadvantage of digitalis, until a research, commensurate with the importance of the subject, and the opportunities his public situation (of house surgeon to the Sheffield Infirmary) so amply affords him, shall authorise him to deliver an unequivocal and decisive opinion on its anti-phthisical virtue.

The average result of one hundred trials, conducted with Mr. Earnest's apparent accuracy, but extended, if necessary, to three months duration, will certainly, if any faith is due to experience, at once justify this comment, and convince Mr. Earnest, that digitalis has an irresistible claim to confidence for *generally* curing the early, and alleviating the late, stages of pulmonary consumption.

Taunton,
Dec. 10, 1803.

I am, &c,
ROBERT KINGLAKE.

CASE OF DISEASED BLADDER, *and* CASE OF DIVIDED LARYNX; *communicated by* MR. I. ROCHE, *Surgeon to the Third Regiment of Light Dragoons.*

THE diseases to which the bladder is liable, are various, sometimes giving way with rapidity, oftener extremely obstinate, and in some cases fatal; none, however, appear more distressing than incontinence of urine, from whatever cause it may have originated. The following case is worth attention, from the celerity with which it yielded to the treatment

treatment described, after its obstinate resistance to so many powerful agents previously employed.

William Reny, almost on his first essay on horsemanship, struck the lower part of his belly with much violence against the pummel of his saddle; the immediate consequences were external inflammation, and a constant flow of urine, immediately on its deposition, from the ureters. The various remedies generally suggested on such occasions were in vain exhibited. Blood-letting, cold applications, blisters, the internal use of tincture of cantharides, pressure, &c. afforded no relief, and he rather lost than gained ground. His stomach, heretofore good, was now much debilitated, his pulse quick and small, the [illegible] painful and hard, and his penis in an [illegible] state of enlargement; add to these the distress of constant micturition, and the case will be allowed to have been unpromising. Having frequently observed the effect of counter irritation by producing a metastasis, I resolved to try the effect of rubbing over the abdomen the following ointment.

℞ [illegible] hydrarg. fortioris unciam, camphoræ solutæ paucis guttis spiritus vini rectificati drachmam dimidiam; M. et fricetur subinde scrupulum secundis horis regioni abdominis.

I did not however wholly rely on this. In order to stimulate the sphincter vesicæ I introduced a middle sized catheter, as well as I could judge so far, as, that the perforations on its end would reach the entrance of the bladder. I then poured about thirty drops of tincture of opium, through the tube, which arriving near its end, emerged on every side, by which means I had reason to conclude the vis insita of the sphincter was roused into action. This was not attended with much pain, and was thrice repeated. After each rubbing of the ointment, I caused the abdomen to be firmly, yet not too tightly, swathed with a flannel roller; a practice I have found of much service in many diseases of the abdominal viscera. Pursuing the plan detailed, I had the satisfaction of inducing in two days a regular flow of urine completely under command; a soreness of the mouth had previously taken place, the camphor having quickened the action of the mercury. The patient has suffered no other inconvenience since, than a slight soreness through the course of the urethra, which, from the means employed, might very reasonably have been expected.

The second case is no further worth notice, than that it

 tends

tends to prove that a part of the thyroid cartilage may be removed without inconvenience, or injury to the voice.

John Benson, a strong muscular man, in a moment of insanity, attempting suicide, cut his throat in four places. I saw him almost on the instant, and found him bleeding profusely and labouring under irritation of the stomach, which consequently caused difficulty and some loss of time. After the vomiting had in some degree ceased, I was able to make a minute inspection of the wounds. I [illegible] three of little consequence, the fourth was large and deep; the razor was twice drawn through this wound, and as o[illegible] through the inferior part of the thyroid cartilage, w[illegible] presented a sharp angular point, thus:

The point *b*, was directed outwards, it was therefore evident I could not close the wound, and leave it so situated, as it would have acted as an extraneous body, of course a cause of constant irritation: I dissected it off at *a*, leaving an apparent opening into the larynx, I brought, by making the interrupted suture, as much of the muscle and cellular membrane as possible over the opening, and inserted the needle as deep as I could without touching the cartilage; by which, I conceived, I guarded in some measure against its loss. From the first dressing no complaint whatever occurred; in one fortnight he was perfectly recovered; and it would not seem, that the least inconvenience has arisen from the loss of cartilage, a part apparently so necessary for the purposes of voice, inspiration, &c.

To the Editors of the Medical and Physical Journal.

GENTLEMEN,

YOUR correspondent, Mr. Marson, in a late Journal, when he attempts to deliver the placenta, says, he applies his left hand to the sacrum, and the right to the parietes of the abdomen, on the region of the dilated uterus; makes a slight pressure with both hands, and increases it gradually, till he exerts what he calls *sufficient* force for two minutes. He frequently relieves his right hand, with the idea of forming a *kneading* motion. He then ties and cuts the navel string, and says, "I again apply to the funis, and find

find the placenta waiting for me, either at the os externum, in the vagina, or so as to be brought away directly, or in a minute or two afterwards; if it should not, I apply pressure as before, and the business is generally compleated; but I should repeat it again and again if necessary." He does not say that he ever applied to the funis till he had performed the operation of kneading nearly two minutes, tied and cut the funis; and the placenta was generally waiting for him, and ready to be brought away in a minute or two afterwards.

Whatever use the right hand was of, in forwarding the separation of the placenta, I see no use the left has of when applied to the sacrum. Does Mr. M. apply [illegible] force with the right as to move the woman on the bed, and is obliged to keep her steady with the left? He [illegible] applies more than a slight pressure. In my humble opinion, it would be more to the purpose, to apply both hands to the parietes of the abdomen, and press with them alternately in the true stile of kneading.

As the operation of kneading has been no part of my practice, I can say nothing in its favour; but I seldom meet with a case in which the placenta is not delivered in the same space of time, *i. e.* in four minutes or a little more, without the operation of kneading. I have attended too many labours, where, from the long continued strong pains the parietes of the abdomen were so painful when touched, that they could very ill bear the necessary pressure of a bandage, or even to allow the bed-clothes to press upon them. There, if the placenta did not advance readily, the kneading process would have been a cruel operation, especially if repeated again and again.

Among other methods, Dr. Denman recommends "making a *moderate* pressure with the expanded hand upon the abdomen, to aid the action of the uterus; but says, the term moderate has no precise meaning:" It is not so precise a meaning as Mr. M's sufficient. He afterwards recommends, "the application of the half closed hands to the abdomen." I suppose he means the hard knuckles. This looks like kneading in earnest. I am very well assured that if the knuckles are applied with such force, as to separate the placenta, the woman must suffer more pain, and the parts will be more injured, than by the introduction of the hand, which might safely and effectually perform the separation and exclusion, which no man, I think, will pretend to promise by the operation of kneading. I have removed several soon after the birth of the child, when I [illegible]

[illegible] discovered an

an irregular contraction, and even on account of the atonic state of the uterus, and also when there was an unusual firm adhesion. And, I speak from many years experience, I have not had cause to repent having done so. I have never seen injury nor inconvenience in consequence of acting in that manner; but have heard of many unfortunate cases where the placenta was left to nature, or allowed to remain too long before it was extracted by art.

Dr. Denman tells us, "Though the placenta may be retained for many hours after the birth of the child, if we be convinced of some degree of descent, especially if we can feel that part of it into which the funis is inserted, we have no reason to be alarmed, or to hurry its exclusion, unless there be an *existing* hæmorrhage; then the placenta may be suffered to remain till it is excluded by the action of the uterus; or, as it descends, the most gentle assistance may be given by pulling at the funis to extract it, without any apprehension of danger, whether it be detained two, or even twenty-four hours, because we have at all times under these circumstances, an easy and certain command of it."

I beg leave to remark on this paragraph, [illegible] and many, like the word moderate, conveys no information; it may mean 3, 36, or 360 hours. Dr. Denman says, "I once saw an instance of a whole placenta retained till the fifteenth day after the birth of the child, and then expelled with little signs of putrefaction, except upon the membranes; the whole surface which had adhered exhibiting marks of fresh separtion. The recovery of this patient was very fortunate, for I have seen several other cases of a similar kind terminate fatally." So much for leaving the placenta to be expelled by the action of the uterus. He says, if we are convinced of the descent, &c. we have no reason to be alarmed, unless there be an *existing* hæmorrhage. He does not tell us how far he introduced a finger to feel the part where the funis was inserted. If that part was descended to the os externum, I think it bad practice to allow it to remain till it is excluded by the action of the uterus, "when we have an easy and certain command of it."

I will also take the liberty of remarking on what Dr. D. calls an *existing* hæmorrhage. I have been called to attend several women, on account of dangerous faintings, who were suffering from *existing* hæmorrhage; where the midwife, instead of attending to the woman, had chose to attend to the dressing the child, and had left the pla-

centa to be excluded by the action of the uterus. I there found, in consequence of the placenta being left, there was no alarm about hæmorrhage, as the vagina was blocked up by the placenta; and, from the atony of the uterus, and the want of a pressure, the uterus was almost as large as before the birth of the child, being filled with blood; from which it is evident, there may be an *existing* though not *apparent* hæmorrhage.

No man can tell whether the placenta, if retained two hours, will be excluded in other two, or in twenty four hours; nor can he tell whether it will be excluded at all without art or force, unless "he has an easy and certain command of it." If that is granted, I am certain the hand may be introduced with incomparably more ease soon after the birth of the child, than it can after twenty-four or forty-eight hours, when, particularly in laborious and preternatural labours, the parts are in a state of inflammation and much contracted, as I have too often experienced. I also feel for the woman and her friends; her and their anxiety is very great, till there is what they call a happy separation. And as I see no good reason for delaying the extraction, I think it safer and better to extract it when it can be done so easily; and think it a good general rule, according to Dr. Denman, "to prefer the introduction of the hand to separate and bring the placenta away, rather than incur the danger of separating the funis from the placenta, or of inverting the uterus by pulling the funis."

Mr. Marson says, "Admitting the placenta to be urged forward by pressure, it is very clear that the hour-glass contraction, as it is called, when this is practiced, cannot take place." Allowing his argument full force, instead of begging the question, I have to observe, that in every hour-glass contraction I have met with, the contraction succeeded the birth of the child so quickly that there was no time to apply pressure; and, sanguine as he is about his method of kneading, I am afraid, if ever he meets with such a case, he will find his pressure inadequate to force the placenta through the contraction. He seems to challenge such a case; I wish him success.

Dr. Denman says, "This assistance," meaning the pressure with the half closed hand, "cannot be given in the worst cases, that is, when the uterus is not at all contracted, or contracted irregularly." If that is the case, this new method of kneading can seldom or never be requisite, as, if the uterus contracts regularly, and in proper time,

the placenta will be excluded, with very little assistance, in the same space of time as those under Mr. Marson's management, as observed in the beginning of this paper, viz. four minutes, or a little more.

In a former number of the Medical and Physical Journal, I observed a case on the delivery of the placenta, by Mr. Bartley. He says the woman was delivered without assistance before he arrived, that considerable hæmorrhage had ensued, but had ceased. The woman was extremely weak and exhausted by the effusion, &c. On introducing his hand, he found a *morbid* adhesion had taken place to the fundus uteri. I have never considered an adhesion, though firmer than what are generally met with, as deserving the name of *morbid*. It appeared from the hæmorrhage which succeeded the birth of the child, that the whole of the placenta had not been in a state of morbid adhesion. He waited four hours and gently strained the cord during the pains. The woman became very importunate, to have the placenta taken away at all events. He again introduced his hand, and removed several large clots of blood which obstructed its passage. [illegible] introducing his fingers round the whole substance of the placenta, gradually detached it, and brought it away entire. Slight hæmorrhage and repeated faintings alarmed him, and made him repent that he had not persisted in his first resolution of trusting to nature for the exclusion of the placenta. If Mr. B. had removed the placenta the first time he introduced his hand, there might have been the same slight hæmorrhage and faintings as took place at last, and no more. But from whence originated the large clots of blood which obstructed his hand? They were formed during the four hours he sat pulling the cord; and which was a very effectual method of occasioning a return of the hæmorrhage which had appeared at first. But as the blood coagulated in the uterus, he did not suspect any hæmorrhage *existing*. By his delay he gained no advantage, but the woman lost all the blood which formed the clots, which might amount to one or two pounds. No wonder she had repeated faintings. The woman could not be stronger at last than she was at first, when he introduced his hand, after losing so much more blood. His account of separating the placenta at last, does not make it appear that there was any morbid adhesion. We are told of schirrous and cartilaginous adhesions, but this did not appear to be one of these. The placenta remained [illegible] attached to the uterus, probably from its atonic

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state induced by the primary hæmorrhage.... Upon the whole, the woman's importunity, possibly, contributed to save her life.

Mr. B. concludes with observing "that the placenta may be retained with safety, a much longer time than is generally admitted." The above case, in my opinion, does not support that position. I am one of those, who can see no safety in allowing the placenta to remain four hours under the forementioned circumstances, I mean an *existing* though not apparent hæmorrhage, attended with great weakness and faintings.

Mr. Marson drops some hints on the use of pressure in flooding cases. When properly applied, it is the only remedy to be depended upon. I have often wondered [illegible] it is never mentioned in Systems of Midwifery, [illegible] but cold, wet, icy applications, which as I have condemned I have never used, nor have I ever lost a patient in flooding. Mr. Marson also hints that he may illustrate and enforce the application at some future period. I for one of your readers wish much to hear his sentiments on the subject, and perhaps I may be induced to give mine.

Newcastle, I am, &c.
December 1, 1805. A. FOGE.

To the Editors of the Medical and Physical Journal.

Gentlemen,

As improvement in the different branches of Medicine, is the grand object of your very valuable Journal, I conceive it to be the duty of every professional man to record every case which may occur to him, that appears likely in any measure to lead to the public good, and particularly any circumstance which may happen to prevent, and may occasionally obviate, the necessity of a dreadful operation in Surgery, where not only the loss of a limb, but sometimes the loss of life is the consequence.

In taking notice of the following case I do not pretend to propose any new practice, more than might occur to every judicious surgeon; but the recording such a case may make an impression on the minds of young practitioners, who are sometimes intimidated at meeting with a violent hæmorrhage, and may be the means of a similar plan

[illegible] to the saying of many limbs if not [illegible]

[illegible] of September, 1802, Rose Clothier, [illegible] athletic habit, received a wound in [illegible] foot, from a reaping hook inflicted [illegible] standing next to her reaping, striking [illegible] ear of corn, the hook being reversed; the wound was [con]sequently in a diagonal direction, penetrated between [the] metatarsal bones of the third and fourth toes, and [divi]ded the artery, from whence there was a considerable [hæ]morrhage.

[Th]e accident happened early in the morning, I think [abou]t eight o'clock. The medical gentlemen who were in [atten]dance, found every effort frustrated which they em[ployed for se]veral hours to stop the hæmorrhage, and pro[posed am]putation as the only resource for the preservation [of life].

[I] was called in about six hours after the accident, and well knowing the impracticability of coming to tye an artery situated under the metatarsal bones and among the flexor tendons of the foot, I did not hesitate what to [do] as the most likely means to preserve the limb. [My] [illegible] object being to retard the velocity of the circulation to that extremity, so as not to endanger the life of the limb, and thereby give an opportunity for a styptic to take a due effect; and I had the extreme felicity of witnessing the propriety of my conclusion.

I applied a tourniquet above the knee to the popliteal artery, and kept it to that degree of pressure which did not compleatly stop the circulation, but so far impeded it that after I had applied a small tent of lint dipped in colc[illegible] vit. and the necessary superficial dressings over, I did not perceive the least hæmorrhage. These dressings were permitted to remain in statu quo for three days, and the tourniquet was gently loosened every day. When the dressings were removed on the third day no hæmorrhage ensued, though the tourniquet was completely loose; the tent was gradually discharged, and the wound healed in a short time.

This case particularly shews the propriety of a deliberate and cool determination on the necessity of amputation; we ought in all cases, where the life of the patient is not immediately endangered, to give every means a trial, as we can but have recourse to the only alternative at last.

Martock, I am, &c.
December 3, 1803. J. P. WESTCOTE, Surgeon.

To the Editors of the Medical and P[illegible]

GENTLEMEN,

IN Duncan's Annals for 1802, I [illegible] Monnot, Professor of Anatomy an[illegible] a[illegible] çon, containing in my opinion, so[m]e useful remar[ks on] what is termed the Membranous Cat[ar]act, or that ob[scura]tion consequent on th[e] inflammation of [t]he capsule, a[fter] the removal of the crystalline lens. As, however, the [uti]lity of these observations must be extremely c[o]nfined [from] being presented to the public, by the editors of that w[ork,] in the original French, if you d[e]em the following s[hort] account of them worthy of insert[ion in] your usef[ul jour]nal, it is much at your service.

I am, &c.

Clement's Inn,
December 14, 1803.

R. HAL[L]

PRACTITIONERS have, it is well known, been long di[v]ided in opinion a[s] to the respective merits of the two oper[ations of] couching, and extracting the cataract. In this pap[er M.] Monnot does not however enter into any discussion on this question, but merely confines himself to the improvement of the latter operation. He commences with a brief history of cataract, which, he observes, is first mentioned in the writings of Hippocrates, who describes with great accuracy the appearances of this malady, although he seems to have been wholly unacquainted with its true character, as well as the operation necessary for its removal; circumstances solely attributable to the impossibility, at that period, of ascertaining by anatomical examination the nature of the body intercepting the rays of light.

From that period until the time of Celsus, this department of surgery appears to have made very inconsiderable progress, as this Latin author was the first who recommended any operation for the cure of cataract.

It would be here unnecessary to follow the author in his detail of the different opinions maintained by various writers, respecting the nature and seat of this disease; according to him, the certainty that it proceeds from an opacity of the crystalline lens, was first demonstrated by Antoine Maitre Jean, but the method of operating practised by Celsus was nevertheless followed, with little variation, until the commencement of the last century.

The

... example of the lens being displaced from the ... of the eye, by means of a needle passed ... is recorded by De Mery, in the Me-... my of Sciences for 1707; since which ... improvements have been made in the man-... operation, and on the instruments ... performing it.

M. Monnot divides cataract into true and false; the first, according to our author, proceeds from the lens acquiring ... degree of opacity, which prevents the rays of light ... on the retina; the second, is owing to a total or partial dissolution of the crystalline, within its capsule, which he denominates the white or milky cataract; whilst the want of transparency in the capsule itself, is termed by him the membranous cataract. This last affection, which frequently succeeds the extraction of the crystalline ... deprives the patient of sight, however dexterously ... operation may be performed.

"This occurrence," observes M. Monnot, "may be prevented, if an intelligent and steady operator divide the posterior part of the capsule, which separates, and allows the vitreous humour to occupy the place of the ... lens. This membrane, being removed from the focus through which the light is directed, no longer impedes its access.

"To explain the superior advantages of this method over that commonly employed, I shall," continues the author, "particularly explain the mode of its performance.

"The patient being placed near a window, and the operator before him on a more elevated seat, his head rests on the breast of an assistant, who fixes it, by placing one hand on the forehead, whilst, with the other, he raises the upper eyelid. In order to prevent the motion of the organ, the other eye is covered with some compresses, supported by a bandage. The operator draws down the lower lid, without pressing on the organ, and takes, with the other hand, the bistoury from an assistant. He directs the point to the edge of the transparent cornea, and to the middle part, which answers to the lesser angle of the eye. Instead of directing it transversely, from the little to the great angle, he conducts it obliquely, so that the point of the instrument is in a straight line with the angle of the nose. This direction, which should be that of every cutting instrument, renders the wound more regular, and is less difficult in the execution.

"When the wound is made on the tr[illegible]ent cornea; and the eye gently pressed, the lens breaks [illegible] slight connexion which retained it, and falls on the cheek. Where the capsule resists, a slender instrument, terminated like a serpent's tongue, passed by the pupil and carried over the anterior part of the crystalline le[illegible], divides it, and this body escapes by the opening."

After this part of the operation is finished, nothing more is supposed necessary by most operators; but, as the author has observed, blindness frequently occurs, in consequence of the inflammation of the capsule of the lens, constituting the affection styled the membranous cataract, he advises, in order to prevent this distressing accident, that immediately after the extraction of the lens, the same instrument should be directed to the p[illegible] part of the capsule, with which a crucial incision should be made on that part. Immediately the vitreous humour occupies th[illegible] of the crystalline lens, and the eye remains clear, [illegible] a cloud.

Among other examples of the success of this method, M. Monnot relates the case of a domestic of M. Chalon, at [illegible], above sixty years of age, affected with a cat[illegible] in both eyes. On one of them he operated in the usual way; whilst, on the other, he likewise made an incision on the posterior part of the capsule. On finishing the operation, the patient recovered the sight in both eyes, but only retained it permanently in the eye in which that mem[illegible]ne had been divided.

By dissecting the eyes of patients who died blind, notwithstanding they had undergone the operation of extraction, the author discovered, that, in these cases, the privation of sight was solely imputable to a morbid thickening in the posterior part of the capsul[illegible]; an effect which, he ventures to affirm, may be almost always avoided, by having recourse to the operative process here recommended.

Extract

Extract from a Memoir, presented to the Medical Society of Paris, by M. VOISIER, First Surgeon to the Hospital of Versailles, on a kind of displacing of the Uterus, in the Case of encysted Dropsy of the Ovarium and Fallopian Tubes, and on the Danger of wounding these Organs in the Operations which may become necessary.

EXAMPLES, without number, may be found in authors of encysted dropsy of the ovaria; but there is no where found instances of encysted dropsy of the Fallopian tubes. If, however, the existence of this disease may have appeared problematical, it is sufficient, in order to conceive the possibility, to recollect that this tube is capable, under particular circumstances, to become excessively enlarged, so as to contain a grown fœtus, with its appendages. Two memoirs, inserted in the Memoirs of the Academy of Surgery, Vol. 2. give an idea of the displacing of the uterus, in the case of an encysted dropsy of one of the ovaria; the first is by Monteulieu, jun. On opening the body, it was found that there was an encysted dropsy of this kind; that the uterus was more raised into the hypogastric region than usual, and inclined to the side of the diseased ovarium. In the second observation, published by Laporte, the uterus was found equally inclined to the side of the right ovarium, in which the disease was situated. The same displacing throughout takes place in the cases of encysted dropsy of the Fallopian tubes. It is only necessary to recollect the organization of these appendages, and their connexion with the uterus, in order to conceive that, in the case of a diseased enlargement of these parts, sufficiently great to fill the abdomen, they should directly act on the body of the uterus, by displacing it, and exposing it to be injured by instruments, used in the various operations which such cases require, either with a view to obtain a palliative or radical cure. The following is an unfortunate instance of the truth of this observation.—A woman, aged forty years, was brought to the Hospital of Versailles; her appearance was that of a person afflicted with ascites. The surgeon, a man of intelligence, performed the operation of the paracenthesis on the left side of the abdomen, at the usual place; four quarts of fluid came off in the first instance with considerable freedom; after which the water stopped suddenly; in vain a stilette was introduced through the canula, in order to remove the obstruction.—The pain which it produced, and faintings,

ings, obliged the surgeon to withdraw it. The patient died three days after the operation. On opening the body, in the presence of the operator, there was found, instead of the right ovarium and Fallopian tube, a cyst sufficiently large to fill the entire abdomen, and which seemed formed by the enlargement of the coats and appendages of the uterus. This viscus was so raised in the abdomen above the superior margin of the pelvis, that it was pierced by the trocar in the operation. M. Dupuytren, to whom I communicated this observation, told me that he had frequently observed, in dead bodies, the kind of displacement in question. He has preserved three preparations illustrative of this fact. In this case the situation of the uterus is entirely deranged. The fundus uteri, dragged and raised by the cyst, inclines to that side the os tincæ is, therefore at the opposite side; and its edges, instead of being placed parallel to the symphisis of the sacrum and ischia, become one superior, the other inferior. In this situation one of the sides corresponds to the junction of the sacrum with the vertebra, the other to the anteriour parietes of the hypogastrium. We conceive easily that the displacement may become still greater when a cyst, producing it, acquires a considerable volume; and when one of the Fallopian tubes contributes to form it, as we have seen in the case of the woman operated upon at Versailles. In this instance the uterus was placed in the abdomen, so as that one of its surfaces was glewed to the parietes of the cyst, and the other was turned to the lateral parietes of the body, on the side opposite to the tumour. These observations may appear uninteresting to those who consider encysted dropsies of the abdomen as incurable, and the operations that are applicable, as ascites, or even dangerous palliatives. It is the celebrated Dr. Hunter, (Medic. Obs. & Enq. vol. 2.) who favoured this opinion, although he was not ignorant that Dr. Bruheld had, in the year 1671, cured, by incision, an encysted dropsy, and which is accurately related in the Phils. Trans. 1724. Monro repeated, but unsuccessfully, this operation; but the person who has done the greatest honour to French surgery, the celebrated Le Dran, obtained a compleat cure of a dropsy of this kind, complicated with schirrosity, by means of an incision made into the most dependant part of the cyst, which became fistulous, and which was kept open for a long time, (Mem. de l'Acad. de Chirurg. tom. 2.)

M. Petit, Radel professor, relates that, in 1774, he radically cured a woman who had laboured two years under an

an ovarian dropsy, by means of the operation for the paracenthesis, and proper treatment. Encyclop. Method. Part. Chirurg. tome ii. p. 192. Independent of these examples of radical cures, how many of palliative ones might be cited. I will confine myself to one observation by Sire-Jean, M. D. of Nancy. The girl, who was the subject of it, was submitted to the examination of all the physicians of that town. In consultation it was agreed that she had an encysted dropsy, but the kind could only be determined after death; the operation of the paracenthesis was performed fourteen times, and in consequence of which her life was preserved many years. But does there exist characteristic signs of encysted dropsies of the ovarium, and particularly of the Fallopian tubes, as well as of the displacement of the uterus, which they occasion? We must allow that the signs of this kind of dropsy described by authors, if they are considered separately, are rather equivocal; that the collateral circumstances which sometimes enable us to judge of their nature, may belong equally to a commencing extra uterine gestation. In the observation of Sire-Jean, we have seen that an entire college of physicians, although they suspected that the ovarium was the seat, and formed the cyst, confesses that he could not establish its real nature till after the death of the girl: this opinion is also confirmed by the 1223 Aphorism of Boerhaave, *Notabilis hydropis species quæ ovaria mulierum sæpe occupat difficulter cognoscitur et vix sine incisa cadavere.* Although it be very possible to confound an encysted dropsy of the Fallopian tubes with extra uterine pregnancy in this part, every practitioner will feel, that the fear of not distinguishing between these two cases cannot exist in the latter stages of this dropsy, where fluctuation, and the consequences of great compression, oblige us to have recourse to the operation of tapping. Besides, by a close examination of all the circumstances which precede and accompany the progress of the disease, we may know the seat of the disease in the affected side; but after what has been said, the displacement of the uterus necessarily existing in cases of dropsy of the ovaria and tubes, we may reckon the touch as the means most likely to throw light on the case. Thus then, in the case of encysted dropsy, suspected to depend on an affection of the ovarium and Fallopian tube, if to the symptoms common to all encysted dropsies of the abdomen, described in the works of the best authors, we find circumstances which prove that the affection began in the parts of generation, that its first devellopement

vellopement was in the hypogastric region, where it had been preceded or accompanied by a painful sensation, should we not, in this case, look on this union of circumstances, when we add the absence of the uterus from the place it usually occupies in the pelvis, and the impossibility of reaching it with the touch, as a means of judging of the seat of the disease?

The following observation will serve to illustrate this assertion.

The widow C. 37 years of age, of a sanguineous temperament, addicted to violent passions, was delivered of her last child twelve years before; this birth was followed by a violent fever; during her convalescence she experienced in the left hypogastrium a painful sensation which did not afterwards quit her. A considerable irritation and pruritus about the labia produced excoriations which were taken for venereal, and the treatment which was the consequence rendered her situation still more unpleasant. From this period her belly swelled considerably, and became so voluminous that when consulted by her for the first time, in the eighth year of the Republic, I found her, to all appearance, labouring under ascites. The remedies usually employed in these cases were used without effect, and I determined to draw off the water by puncture. As the disease originally affected the genitals, and as she complained from the beginning of pain in the left side, which followed laborious parturition, the menses appearing regularly during the progress of the disease, but, particularly, as the swelling had begun in the left side, I suspected the existence of an encysted dropsy of the ovarium. With a view of ascertaining my suspicions, I had recourse to examination. In vain I sought after the os tincæ; I then determined to perform the operation on the left side of the abdomen. By means of the operation the cyst was completely emptied; the water that flowed was of the colour and consistence of ordinary urine. After the operation, by pressing on the left flank, a voluminous body was readily perceived; but, notwithstanding the evacuation of the waters, the neck of the uterus was imperceptible. During the months following this operation the patient felt better, but soon after the tumour filled again. The second operation was performed five months after, and near the first cicatrix. After evacuating the water, on withdrawing the canula, I placed in the cyst a small seton composed of a few threads; I recommended the patient to be constantly on the left side, in order to favour the evacuation of the water,

water and prevent a new collection. The wound became as d wished fistulous, and during eight months carried off constantly the waters as they were secreted. By persevering in this treatment, assisted by the use of aperients, tonics, and a suitable regimen, the woman became so far restored as to follow her usual occupations and even support the fatigue of a journey. Towards the beginning of the eleventh year the fistulous opening was allowed through negligence to close, on which the cyst began immediately to fill; I saw her towards the middle of last Brumaire (beginning of November.) The belly offered the appearance of an ... tumour, extending itself from the left iliac region towards the umbilicus; I recommended the woman to undergo the same treatment which had already suceeded so well. She sent for me again at the end of four days; the tumor no longer existed, the water that formed it had been ... by an opening made by the patient herself with a bad penknife at the navel, and where the water had caused a considerable prominence; I recommended her to keep this open, and to observe the regimen already described. Towards the end of last Frimaire her situation got worse, and she died on the 8th of Nivose in consequence of an indigestion and a vomiting which it had occasioned. The following day the body was opened in the presence of my colleagues, M. Lamayran and Muhault, and the pupils of the hospital. On opening the abdomen the peritoneum was found every where connected to the viscera, the intestines were livid, and the omentum exhausted of its fat, and in many parts covered by a puriform matter. The uterus was raised into the hypogastrium above the superior margin of the pelvis, and inclined towards the left flank; the Fallopian tube of this side as well as the ovarium had entirely disappeared, but in their stead was observable a membraneous sac adhering firmly to the left side of the body of the uterus, and of which it seemed to make a part; the surface of this sac was thin, and in some places gangrenous, and extended to the navel, terminating at the small opening which the patient herself had made. This sac was narrower towards the navel, and larger towards the uterus, and occupied all the left lumbar and iliac regions, and contained about four ounces of a brownish flaky matter. The cavity of the matrix was, notwithstanding these appearances, perfect as well as the tube of the right side, but the ovarium was much enlarged, and contained many hydatids of the size of a filbert; without this increase of weight, which seemed to counterbalance the left side, it is probable

probable that the displacing of the uterus would have been more considerable. We see from the appearances on inspecting the body of this woman, that the opinion that had been formed of the nature of her complaint was founded. If the uterus and its appendages were found so far displaced after death, how much greater must this have been before the first operation, when the tumor extended over a much greater surface of the abdomen?

It may be useful however to remark, that the means pointed out for ascertaining the nature and kind of dropsy in question, and the displacing which it causes, in order to avoid the danger of wounding it in operating, may be in some instances insufficient. In such a case, rather than run the danger of wounding, would it not be preferable to make the puncture at the navel rather than in the usual way?

The author concludes his Paper by arranging under four heads the reflections and observations which he has offered.

1. That encysted dropsy of the ovaria and Fallopian tubes may occasion the displacing of the uterus, and that in this case the uterus is raised out of the pelvis, and inclines from the side of the cyst which drags it.

2. That then the uterus is placed at the opposite side to that of the tumour, so that if it be the left ovarium and tube that form the cyst, the sac will be situated between the uterus occupying the right and left side of the integuments of the abdomen, and vice versa.

3. That if we have recourse to various operations used in such cases, without ascertaining the affected side, and the position of the uterus, we run a risk of wounding the uterus, and causing death.

4. That the means of avoiding this danger is to open the cyst on the side of the seat of the disease, or at the navel if the tumour extends to this part.

To Dr. BRADLEY.

SIR,

I Should not have again troubled you upon a subject, which has probably ere this exhausted your patience; but the fear lest my silence should be attributed to the consciousness of having acted with duplicity, induces me to offer a justification of my conduct. In a paper upon Apoplexy,

plexy, inserted in No. 51, of the Med. Journal, Dr. Mossman, reverting to the dispute respecting the employment of emetics in that disease, observes (Dr. Cullen) "in his treatment of the disease, the do not positively forbid the exhibition of emetics, (about the employment of which there has been so much controversy) he very certainly does not recommend them. *A quotation, indeed, from the MS. lectures of Dr. Cullen, admitting of the use of emetics, has been communicated to us anonymously; but as it comes in this shape, it ought not to have been given at all, for it is not evidence.*"

Dr. M. appears to me to be extremely fastidious in making this objection, though I do not feel offended at the insinuation it conveys, because, to use a *homely proverb*, "Nothing hurts but the truth." But as it is incumbent upon me to remove every suspicion of deceit, I pledge myself to give Dr. M. any satisfaction he chooses respecting the accuracy of the quotation alluded to, which is as follows. "This (vomiting, Dr. Cullen observed) hath sometimes been practised with safety. It is difficult to explain how full vomiting is employed without increasing the congestion; yet here, facts are in part against our theoretic fears." From this quotation, I think, the Reader can only infer, that Dr. Cullen would not have *censured* the exhibition of an emetic under proper circumstances. If, however, the quotation be false, and if I have recorded words which Dr. Cullen never uttered, I may easily be contradicted by numbers of gentlemen who attended the Lectures of *our* "justly celebrated Preceptor," in the years 1787—88. With regard to my having written anonymously, it surely can be of no great consequence to the Reader, in the present instance, where equal obscurity would prevail, whether the real signature or a fictitious one be subscribed.

Notwithstanding what has been said upon the use of emetics in Apoplexy, and the respectable authorities which have been adduced in support of their safety, at least, Dr. M. adheres strenuously to his former opinion, that the practice is fraught with danger. It is remarkable also, that Dr. M. has not alleged any plausible reason for his deep-rooted antipathy; and that he has not informed us what share the emetics, exhibited in the two instances which he reports, were supposed to have had in accelerating the death of the patients. An emetic, Dr. M. observes, is an *awful instrument*; and so, it may be added, is an enema,

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yet it is frequently administered by the old ladies with great success.

Though I am ready to acknowledge the very beneficial effects derived from the prudent use of the lancet in Apoplexy, I cannot agree with Dr. M. in thinking that 'every man who has treated apoplexy must have witnessed *instant relief* by the operation of bleeding, (Medical Journal, vii. 208); neither can I admit with him, that 'the morbid phenomena of this disease, both before and after death, are so uniform, as to draw from *every author* a description very exactly similar.' Very different indeed are the histories of dissections in this disease; but I forbear entering into particulars, as I do not wish to have the Controversy renewed. *Requiescat in pace.*

Before I quit the subject, however, I cannot refrain from expressing my disapprobation of the slighting manner in which Dr. M. speaks of Riverius and Van Helmont.— "There is (he says) a stateliness, I think, in quoting such authorities as Riverius or Van Helmont; and there is a want of fairness in deducing from the opinions of those men, any sound practical inferences." Does Dr. M. mean, that we should not consult medical records; and that the valuable observations which our Predecessors have bequeathed to us, should be neglected, as useless? Surely, some respect is due to age, some deference to those who have removed the thorns which obstruct our progress. The inordinate praise which some have lavished upon the antients, has been justly ridiculed; but pedantry appears to me to be more excusable than that democratic spirit which endeavours to strip them of their justly-acquired honours. Indeed, when I perceive this spirit of detraction prevailing to a great degree, I am tempted to a certain little fable of Esop's, respecting the fox in the vineyard. I do not wish to offend Dr. M.; neither do I presume to inform him of the characters of the men whom he treats so disrespectfully. Riverius, it is well known, was no disgrace to a Professor's chair in an University which has ever boasted of her learned men. He was an excellent observer; and the remedy which still retains his name, and which we are daily obliged to have recourse to, is no despicable memorial of his practical skill. The treatment which the memory of Van Helmont has received, ought to caution physicians from indulging in idle speculations. It has been too much the custom for the witlings of succeeding ages, to use this venerable name as a *butt* to shoot their puny shafts at; but men of discernment have done justice

to

to his genius, his learning, and his industry. "The friend of truth, says a learned writer, (Sprengel Geschichte der Arzneykunde) contemplates with pleasure the writings of a man, who, though addicted to the superstitions of his age, detected innumerable theoretical and practical errors; and published observations, which later physicians, from a want of better information, have considered as recent discoveries: Helmont may be placed by the ignorant in the same rank with Paracelsus, and be despised; but impartial History will assign the wreath of merit to this neglected physician." The great and good Baron Haller bestows on Van Helmont a similar eulogium; he calls him "vir acuti ingenii, in detegendis aliorum erroribus acris, in colligendis eventis suæ causæ faventibus ingeniosus, non expers anatomes, &c." Biblioth. Med. Pract.

R. WINTERBOTTOM, M. D.

South Shields, Aug. 20, 1803.

To the Editors of the Medical and Physical Journal.

GENTLEMEN,

ON reading over the arguments and opinions respecting the late Epidemic, published in your Journal, I cannot fail being surprised to find such opposite sentiments; one party believing it to be derived from the air; the other, that it is contagious, or communicable from person to person. Soon after the commencement of this disease I formed my own opinion from what I thought accurate observation, and I have had no reason to alter it. It appeared in this town and neighbourhood the beginning of March, in several families nearly at one and the same time, and disappeared as suddenly, the latter end of May. I took notice that, at first, one or two in a numerous family would have it, and the rest escape; but after the disease became more general, it put on a more contagious aspect, which I conceived was caused by a greater number of Constitutions being attacked, generating thereby *another morbid influence, very different from the first.* For, I believe it cannot well be denied, that contagious effluvia may thus be generated, and that also some particular constitutions are more prone to run into those states productive of it, than others. Upon this I grounded my opinion, and I am clearly convinced that the advocates for original Contagion cannot

cannot establish their point; for where it was *apparently* contagious, it was so by accident; the poison already generated in some constitutions had diffused itself, breaking down that healthy barrier which hitherto had resisted the atmospheric influence, and thereby received the epidemic under a new form; and, in this manner, we can easily account for the diversity of opinions that have been advanced in this interesting controversy. In regard to the treatment, some have found the use of the lancet altogether inadmissible, whilst others have repeated the operation with evident good effects. How can we reconcile this contrariety in practice, if we are to suppose that in both instances the patients were labouring under the sedative effects of human contagion?

I do not in the least flatter myself, that any thing which I have now advanced will meet the ideas of those gentlemen who have published such direct and opposite sentiments; but as I am clearly of opinion that the late epidemic, termed Influenza, was no more contagious *in itself* than a common catarrh, I consider it as a bounden duty I owe to you, Gentlemen, as a Reader of your Journal, and to the Public, to make those opinions known, which have produced such complete conviction in my own mind.

I am, &c.

Alcester, Nov. 12, 1803. T. PURTON.

P.S. As the cause which produced these changes in the atmosphere, appear to have operated very generally over this side of the globe, having its origin many degrees eastward of us, we cannot reasonably suppose that human effluvia floated in the air, and was *rapidly* wafted to us from countries so remote; it is the rapidity with which it passed from one side of the island to the other, which completely does away the argument in favour of contagion; and, indeed, as we are led to believe, from great authority, that when contagious matter is conveyed by the air, it has *never been found to act far from the sources from whence it arose*, (Cullen, First Lines, vol. 1, p. 82) how can we suppose for a moment that the late epidemic had its origin from human contagion, as we well know that it appeared in France and other countries before it made us a visit?

Account of Diseases in an Eastern District of London, from November 20, to December 20, 1803.

ACUTE DISEASES.	
Pneumonia	3
Peripneumonia Notha	7
Dysenteria	5
Variolæ	5
Rheumatismus Acutus	4
CHRONIC DISEASES.	
Tussis	29
Tussis cum Dyspnœa	17
Hydrothorax	3
Phthisis Pulmonalis	4
Hepatitis Chronica	[illegible]
Ascites	3
Anasarca	5
Diarrhœa	9
Enterodynia	7
Gastrodynia	5
Menorrhagia	7
Amenorrhœa	12
Leucorrhœa	10
Dysuria	4
Hysteria	3
Cephalalgia	8
Paralysis	3
Vertigo	2
Rheumatismus Chronicus	20
PUERPERAL DISEASES.	
Menorrhagia Lochialis	7
Ephemera	8
Dolores post Partum	4
INFANTILE DISEASES.	
Ophthalmia Purulenta	2
Herpes	3
Vermes	2
Dentitio	4

The state of diseases has of late been more favourable than usual. Fewer of those complaints have appeared which in general occur in the autumnal months. Coughs and catarrhs, difficult respiration, and other affections of the chest have indeed increased in number, and have been attended with an aggravation of symptoms since the late alteration in the state of the atmosphere.

The subject which engages the principal attention of medical men at present, is the state of variolous contagion. The small-pox has lately appeared in a much larger number of instances than has been observed for a considerable time. This fact is very well ascertained by the report of the weekly bills of mortality, in which the number of deaths occasioned by this disease is very considerable; and also by the observation of medical men, who in the course of their practice have met with an unusual number of cases. This disease has not only occurred very frequently, but has been attended with aggravated symptoms, and has often proved fatal. That the small-pox should prevail in so considerable a degree, when such means are employing for the prevention of it, may excite some surprise. It must be recollected, however, that notwithstanding the very extensive trial which has been made of the Vaccine Inoculation in every part of our own country, and in other parts of the globe,

globe, and the uniform success which has attended it, there is still a considerable prejudice against it. That requests are frequently made for inoculation with variolous matter, is known by private practitioners of medicine, and especially by those whose connection with public institutions gives them a still farther opportunity of observing the fact.

How desirable the removal of this prejudice is must appear to every reflecting person, to whom it must occur, that by the preference of the variolous to the vaccine inoculation, the former disease is propagated, and that the public are in continual danger of suffering by a malady which has proved one of the most loathsome and dangerous of those that have ever visited the human frame.

CRITICAL ANALYSIS

OF THE

RECENT PUBLICATIONS

ON THE

DIFFERENT BRANCHES OF PHYSIC, SURGERY, AND MEDICAL PHILOSOPHY.

Richerand's Elements of Physiology, concluded.

In the subject of the fourth chapter, Respiration, the reader will naturally expect a very copious addition to the labours of Haller, as many of the most interesting facts relative to this function have been discovered or elucidated since the publication of the Primæ Lineæ.

The mechanical powers by which the dilatation of the thorax is effected, are first noticed by Mr. Richerand. He very properly considers the diaphragm as almost the only agent in common dilatation of the thorax, and the muscles of the chest as only auxiliary.

" When any cause whatever renders inspiration difficult, prevents the diaphragm from descending towards the abdomen, or in any other manner impedes the motion of inspiration, the intercostal muscles not only evidently act to induce a dilatation of the thorax; but also several other auxiliary muscles, as the scaleni, subscapulares, pectorales, serrati majores, latissimi dorsi, in concert raise the ribs, and increase the diameter of the thorax in several directions;

directions; the fixed point of these muscles should then be their movable part, because the cervical spine, the clavicle, scapula, and humerus, are fixed by other powers which it would be needless to enumerate. Any person who observes the access of a convulsive asthma, or the paroxysm of a severe cough, may easily appreciate the importance and action of these auxiliary muscles."

The history of the chemical changes produced by respiration on the air inspired, and on the blood in the arterial and venous systems, together with the accruing phenomena of animal heat, is a fair subject for the proof of the Author's research and ability; we shall therefore attend to it with more minuteness. The following is the Author's description.

"Each time the thorax dilates in an adult man, from thirty to forty cubic inches of atmospheric air enter into the lungs; and when in a state of purity, composed of 73 parts of azot, 27 parts of oxygen, and $\frac{1}{100}$ or $\frac{2}{100}$ of carbonic acid.

"After the atmospheric air has remained some moments in the pulmonary structure, it is expelled by the effort of expiration; but its quantity is diminished: it is reduced to thirty-eight inches. Its composition is not the same: there are found, certainly, $\frac{73}{100}$ of azot, but the oxygen, its vital and respirable part, has suffered a great diminution; its proportion is only $\frac{14}{100}$: carbonic acid constitutes the remaining $\frac{13}{100}$, and sometimes one or two parts of hydrogen gas are found. It is likewise altered by the mixture of an aqueous vapour, which condenses in cold weather in passing out through the nostrils and mouth: it is known by the name of the humour of pulmonary exhalation. These changes, compared with those which the blood has suffered in its passage through the lungs, manifestly indicate a reciprocal action of this liquid and the oxygen of the atmosphere. The dark venous blood, slow of coagulation, and separating much serum, loaded with hydrogen and carbon, possessing only thirty degrees of heat, gives off to the oxygen of the atmosphere its hydrogen and carbon, to constitute the carbonic acid and pulmonary vapour; and as oxygen cannot enter these new combinations without disengaging a portion of caloric, which rarefies it into gas, the blood seizes this heat, now liberated with so much greater facility as it proportionally loses its hydrogen and carbon; and agreeably to the ingenious experiments of Crawford, its capacity for caloric augments in the relation of 10 : 11.5.

"The blood, in relinquishing its carbon, which, combined with oxygen, forms the carbonic acid given off in expiration, changes its dark and almost violet colour to a bright vermillion red; its consistency is increased by the dissipation of its hydrogen and aqueous parts; besides, as it absorbs a certain quantity of oxygen, it becomes frothy and lighter, its concresibility and plasticity increase, and on coagulation less serum is separated.

"The blood, in passing through the lungs, is deprived of hydrogen and carbon, and, in becoming arterial, is loaded with oxygen and caloric. In proportion to its distance from the heart, it is de-

prived of its oxygen and its caloric, which are formed into oxyds of hydrogen and carbon; these, by a fresh addition of oxygen, when under the influence of atmospheric air in the lungs, form water and carbonic acid.

"This theory of the disoxygenation of blood, in passing through sanguiferous vessels, acquires a new degree of probability from the recent discoveries on the nature of the diamond. This body is the only pure carbon, and the substance to which chemists give this name is an oxyd of carbon, deriving its black colour from the oxygen with which it is combined. Before these experiments, it was difficult to determine the particular state of carbon that forms such a considerable part of venous blood.

"We have not yet precisely determined the respective quantities of oxygen absorbed by venous blood, and of the same oxygen employed to disengage the hydrogen and carbon in the lungs, to form the water and carbonic acid.

"Is the carbon in venous blood combined with oxygen, or united with hydrogen, forming an hydro-carbon? It seems to me more probable that the oxygen absorbed, in uniting with the hydrogen in every part of the body, produces the water that dilutes the venous blood, renders it more fluid, and abounding in serum, than arterial blood; whilst, in uniting with carbon, it forms an oxyd that gives this blood a dark colour, constituting one of its principal characteristics. The water when in the lungs, which are true secretory organs, exhales, dissolved by the air, and forms pulmonary transpiration or exhalation; the oxyd of carbon, more completely burnt by a superaddition of oxygen, constitutes carbonic acid, which gives the air passed by expiration the property of precipitating lime-water."

A more confused and slovenly account of this most interesting proceess, we will venture to say, was never given by any one who professed to condense in one Treatise, all the elements of physiological science. Scarcely a single experiment is mentioned, on which the theory is founded; no facts, no data, no calculation; in short, nothing that indicates any research even into those sources which must be peculiarly obvious to French writers. Surely Lavoisier, Laplace, Jurine, Hassenfratz, and many others, would have furnished him with abundant matter, without the toil of research into foreign writers, of which he appears so profoundly ignorant. Neither is the meagre, scanty information which he does bestow entirely accurate. The quantity of carbonic acid stated to be produced is that of successive inspirations of the same air, not of a single inspiration, as would be inferred by the context. The following is another specimen of equal inaccuracy:

"Arterial blood becomes venous by parting with its oxygen when any cause suspends or retards its course, as proved by the following experiment of J. Hunter. He tied the carotid of a dog in two places, at about four inches distance; the blood which came out of that portion of the artery between the ligatures, when opened

ral hours afterwards, was coagulated and d... like that of the veins."

If the author had not previously resolved that arterial blood should become venous *by parting with its oxygen*, he would never have made this inference from Hunter's experiments, which shews only that arterial blood *remaining at rest* within the vessel assumes a venous colour.

The Section on Animal Heat is still more defective than the former, nor is its connection with respiration traced with any degree of ability or precision.

The fifth Chapter treats of secretions, and particularly of the blood, the source of all the secretions. The latter is described more chemically than physiologically, and hence many interesting particulars relative to the coagulation of blood are entirely omitted. Of the secretions themselves, only the fat is described individually; the others are noticed in a general way along with the organs which separate them, and the secretory glands.

A trifling chapter on Nutrition succeeds, which the author appears to dispatch with great haste, that he may proceed to a long and important chapter, the subject of which is Sensation.

The order of description is, the sensations of sight, sound, smell, taste, and feeling, with their corresponding organs; the nerves, the brain, and the general functions of the nervous system. As a favourable specimen of the author's anatomical descriptions, we shall give part of that of the eye.

"The globe of the eye may be considered as a dioptric machine placed before the retina, destined to refract luminous rays, collect them into a focus, which strikes one point of this nervous membrane, exclusively adapted to receive the impression. One external, membranous, firm, and consistent covering sustains all its parts. Next to this membrane, called sclerotic, is found the choroid, a black tunic that lines the interior surface of the sclerotic, and causes the eye to be a *camera obscura*. At the anterior part of the globe the sclerotic leaves a circular opening, in which the transparent cornea is received; about the twelfth part of an inch distance from this convex segment, in the anterior aperture of the sclerotic, is found the iris, a membranous system, perforated by a round aperture (the pupil), which dilates or contracts conformably to the expansion or contraction of the iris.

"At a very small distance behind the iris, about the union of the anterior quarter of the globe of the eye with the remaining three quarters, posterior and opposite the opening of the pupil, there is a lenticular body, enclosed in a membranous capsule, invariably fixed in the place it occupies by its adherence to the membrane of the vitreous humour.

"Behind the crystalline lens the three posterior quarters of the cavity of the eye are filled with a viscous, transparent humour, enclosed in the cells of an extremely fine membrane, called a hyaloid. This vitreous humour constitutes about two-thirds of the

 sphere

sphere from which the anterior third might have been taken off; it is on the surface of this membrane and humour that the pulpy expansion of the optic nerve, called retina, is distributed, which adheres also as firmly to the choroid and sclerotic membranes.

"The globe of the eye being almost spherical, this difference of its diameters is very inconsiderable: the diameter from the anterior to the posterior part, is ten or eleven lines; the transverse and vertical diameters are not quite so long. In the space formed by the antero-posterior diameter that forms the visual axis, are found, in passing from before, backwards, the cornea, the aqueous humour, in the anterior chamber, the iris, and its central perforation, the aqueous humour of the posterior chamber, the crystalline lens, surrounded by the ciliary processes, then the vitreous humour enclosed in the hyaloid membrane; and behind these transparent parts of the eye, through which the luminous rays pass in approaching the perpendicula, are, the retina, that receives the impression, then the choroid, the black coat, pigmentum nigrum, which absorbs the rays that penetrate through the fine retina; and, lastly, the sclerotic, perforated for the entrance of the optic nerve into the globe of the eye.

"The cornea enclosed in the anterior space of the sclerotic, like the glass of a watch in the frame of its outside case, is about the third of a line in thickness; it forms the segment of a smaller sphere before the eye, in addition to the anterior part of a larger sphere; behind it is the aqueous humour that fills what are called the chambers of the eye: these are distinguished into an anterior or larger space, limited by the cornea before and the iris behind; and into posterior or smaller space, separating the crystalline lens from the iris, the posterior surface of which is covered with a black substance called *uvea*."

In the latter part of this chapter, Vicq d'Azyr and Condillac have furnished some masterly anatomical descriptions, and acute metaphysical remarks.

In the eighth chapter the phenomena of motion, and of all the combined action of the voluntary muscles, are described; and in general, in a more satisfactory and instructive way than perhaps any other subject in the whole volume. The idle chemical theory of Girtanner, to explain muscular motion, meets with more applause from our author than we expected. A short notice of Galvanism is also introduced in this part.

In the succeeding chapter on the voice, the following remarks on ventriloquism may give some information:

"There resides in the ci-devant Palais Royal, in the coffee-house of the Grotto, a man who can maintain a dialogue with such accuracy, that we should be induced to believe two persons were actually engaged in conversation at a certain distance from each other, the accent and voice of whom seem to be entirely different. I have observed that he does not inspire when speaking from the belly, but that the air passes in smaller quantity from the mouth

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and nostrils than when in ordinary speech. [illegible] time that he exerts this unusual peculiarity he suffers distension in the epigastric region; sometimes he perceives the wind rolling even lower, and cannot long continue this exertion without fatigue.

"At first I had conjectured that a great portion of the air expelled by expiration did not pass out by the mouth and nostrils, but was swallowed and carried into the stomach, reflected in some part of the digestive canal, and gave rise to a real echo; but having afterwards more attentively observed this curious phenomenon in M. Fitz-James, who represents it in its greatest perfection, I was enabled to convince myself that the name *ventriloquism* is by no means applica[illegible] whole of its mechanism consists in a slow, gr[illegible] expiration, drawn in such a way that the artist either makes use of the influence exerted by volition over the muscles of the parieties of the thorax, or that he keeps the epiglottis down by the base of the tongue, the apex of which is not carried beyond the dental arches.

"He always makes a s[illegible] inspiration just before this long expiration, and thus conveys a considerable mass of air into the lungs, the exit of which he afterwards manages with such address. Therefore repletion of the stomach greatly incommodes the talent of M. Fitz-James, by preventing the diaphragm from descending sufficiently to admit of a dilatation of the thorax, in proportion to the quantity of air that the lungs should receive. By accelerating or retarding the exit of air, he can imitate different voices, and [illegible] his auditors to a belief that the interlocutors of a dialogue, which is kept up by himself alone, are placed at different distances; and this illusion is the more complete in proportion to the perfection of his peculiar talent."

No particular remarks are suggested by the next chapter on Generation.

The work concludes with the history of ages, temperaments, varieties of the human species, death, and putrefaction. Remarks on temperament are always entertaining, as they afford much scope for elegant description, and the sallies of the imagination. Without commenting on the soundness of our author's observations, we cannot but smile at the examples or proofs which he brings in illustration. Thus, the *sanguineous* temperament is exhibited, physically, in the statues of the Antinous and Apollo; morally, in the character of Mark Anthony and Alcibiades; the *bilious* or *choleric*, in the haughty spirits of Achilles, Alexander, or Julius Cæsar; the *pituitary*, in the mild, conciliating Atticus, the common friend of irreconcilable enemies. But he does not give his proofs that Atticus had a fair skin, flaxen or sandy hair, and a slow pulse; Achilles, an excessive perfection and precocity of the liver, to the prejudice of the lymphatic and cellular systems; and Alexander, or Mahomet, a hard pulse, yellowish brown skin, and firm muscles.

The work before us will, doubtless, instruct most learners who take the pains to study it; but we are compelled to observe that it is

is not what it pr[illegible] be, a complete outline of Physiology, according to the pr[illegible] state of human knowledge, being defective in those few parts in which extensive learning was required to collect widely scattered materials, and full only in those in which the Author could profit largely from the *finished* labours of his predecessors.

The Translator appears to have executed his task with general fidelity and elegance. A few errors have occurred to our notice, one of which (phosphat of lime for phosphat of iron) very unfortunately makes nonsense of an explanation of the red colour of the blood; and, for the convenience of the English reader, the degrees of Reaumur's thermometer ought universally to have been expressed by their equivalents on the English scale.

Observations on the anti-phthisical Properties of the Lichen Islandicus, or Iceland Moss; comprehending explicit Directions for the making and using such Preparations of [illegible] and Auxillaries, which experience has proved best adapted to the Cure of the different Species of pulmonary Consumptions, of Great Britain; by RICH. REECE. 8vo. pp. 32. 1803.

THE principal object of this short pamphlet appears to be, to suggest what the author considers as improvements upon Dr. Regnault's [illegible] employing the lichen. These are founded on a division of the properties of the plant into the bitter and the mucilaginous parts, and combining them, according to the indications, with other auxillaries.

"The Lichen Islandicus (says Mr. R.) possesses considerable medicinal and dietetic properties; the latter residing in a strong mucilage, which affords a regimen well adapted to support the debilitated frame of phthisical patients; and the former in a bitter which, in proper doses, is evidently of an anodyne nature, which powerfully allays cough; and, unlike opium, at the same time facilitates expectoration, abates hectic fever, quiets the system, without constipating the bowels. It is likewise tonic, which strengthens the organs of digestion; and different from any other of that class, without increasing the action of the heart and arteries—the union of these properties unquestionably affords a most valuable remedy in the treatment of pulmonary consumption.

"The bitter portion of this herb, (which must be considered the principal agent in the relief of the phthisical symptoms) is readily imparted to boiling water by infusion; but by the long boiling necessary to extract its mucilage, this quality is nearly destroyed.—Quarin, sensible of this circumstance, directs the herb to be boiled in water only half an hour, which extracts but a small portion of the mucilage, and contains its medicinal virtues, unimpaired; and Hartmann recommends two drachms of the herb to be boiled in a pint of milk a short time, which is ordered to be drank off in a morning; and this form has been most followed by the physicians

in London; but with patients affected with dyspeptic symptoms, this medium often proves too heavy."

Our observations do not confirm these assertions; we do not find the bitter quality of the herb destroyed by the boiling necessary to extract its mucilage; if the boiling be properly conducted, which should be only digesting in a boiling heat, the bitter will not be diminished. The practice imputed to the physicians in London, of recommending a slight boiling of the plant in milk, is contradicted by our information, and we should be surprised to find any such practice generally prevalent in the metropolis. If, however, medical men should be desirous of combining the virtues of the lichen with , since , they can be at no loss to reconcile them to dyspeptic habits.

The author agrees with Dr. R. p. 6, in recommending a full and free use of the plant, both as diet and medicine; but he prefers a flour, or, as he terms it, a *farina*, made from the herb, which he thinks may be converted into the suitable preparations more easily than the plant itself. This indeed is the practice of the Icelanders, who make it a principal article of their soups or broths, and often make bread of it; but their mode of grinding it, or any other that could be employed in private families, is too troublesome for general use. We have therefore been in the habit of recommending the digestion in a boiling heat for two or three hours; and when the liquor has been strained, as much of the herb is to be rubbed through the sieve as can be made to pass, and mixed with the liquor. By this process all the virtues of the plant will be obtained, without the trouble of grinding it; the danger of sophistication, to which the temptation is so great, and the detection so difficult when the meal is purchased ready ground, will also be avoided. Though Mr. R. may prepare it faithfully, others may adulterate; and there is no exclusive privilege to guard us against frauds.

We are happy to find that Dr. Regnault has succeeded in drawing the public attention so generally to this subject, and that he has been called upon for a second edition of his Essay. In consequence of such request, we understand he has made considerable additions and improvements both in the pathology of consumption and the manner of treating its different stages; and that the work will make its appearance in the course of a few days.

The London Practice of Midwifery, or a Manual for Students. London, 1803.

THIS work professes to be a System of Midwifery, founded upon the London practice, but we have authority to say that it is only a surreptitious copy of the notes taken at the Lectures of an individual Teacher of Midwifery in London. We wish that we could even recommend it as such; but the whole work bears evident marks of haste and inaccuracy. The very names of writers are falsely spelt, as Peuso for Puzos, Bourdelois for Baudelocque, &c.

Words

Words are given as Ambrose Paré's which are not to be found in his works; and [illegible] is made to vouch for opinions, which he never entertained. Dr. Johnson is quoted as the author of experiments which he never made or thought of; experiments of the late Mr. Hunter are related in the most inaccurate manner; and experiments of Spalanzani are positively attributed to Mr. Hunter. Some passages may be found, which are absolute nonsense, and such as no Teacher could ever have delivered; for example, "The menstrual discharge from the uterus serves as a nidus, in which the ovum is nourished."

We have noticed these among an infinite number of errors in the physiological part.

Innumerable mistakes are to be found in the practical part of this work, which are more important, because they are capable of doing more mischief, and of misleading young practitioners. In the rules for the application of the forceps, the *sides* are mistaken for the edges of the instrument, so that if it was applied by the rules laid down infinite harm may be done.

On the whole we must repeat, that the book is a very bad compilation from the notes hastily and very incorrectly taken by a young student, at the lectures of an individual teacher, and is too incompleat to serve as a practical guide to those for whom manuals of this kind are intended.

MEDICAL AND PHYSICAL INTELLIGENCE.

[FOREIGN AND DOMESTIC.]

In the Medical Journal, published at Montpelier, we find two cases of children poisoned by the use of bitter almonds; in one the person had eaten them heated in a copper vessel; in the other, the child had been made to drink the milk of bitter almonds as a remedy against worms.

It is rather singular, the variety of opinions that exist on the pernicious effects of these bodies; some maintaining them to be harmless when used by man, while they are acknowledged to be highly deleterious to other animals, particularly birds. The learned Prof. Murray made many experiments on different animals, which prove their poisonous qualities, but in different degrees in different animals. In those animals, the subjects of his experiments, as well ai in the cases of the children, the effects of drunkenness were very remarkable. On the other hand, Fred. Hoffman asserts, Medic. Ration. System. vol. 1. that their bad effects are but

but little observed in the human subject, but, like nux vomica, highly so to other animals; he instances the dog, cat, pigeon, &c. The experiments of Schrader, a distinguished chemist of Berlin are remarkable. He found that the prussic acid was contained in laurel water, in the infusion of peach leaves, in bitter almonds, as well as many other vegetables; and, desirous to ascertain if this acid produced the same effects on the animal economy as the distilled laurel water, bitter almonds, &c. he gave a sparrow some drops of it, which was immediately killed. The same author asserts, that birds respiring the vapours of prussic acid, die as quickly as those exposed to the smell of laurel water. If bitter almonds contain prussic acid, and if this acid be mortal, may we not conclude that their pernicious effects depend on the prussic acid which they contain?

Professor HUFELAND, first physician to his Prussian Majesty, at Berlin, highly praises the external use of *flores zinci* in excoriations and cutaneous ulcerations, and has employed them with great success in painful excoriations of the nipples, in ulcerated herpes, and in the obstinate remains of an inveterate itch. This remedy diminishes the pains, is exsiccant, and healing within a short time, without being attended with any danger, which we have always to dread from the external use of lead and its preparations. He generally makes use of the following unguent: ℞. Ungt. pomat. unc. j. flor. zinci semin. lycopod. aa dr. ß. M. This ointment he orders to be applied three times a day, spread on pieces of soft linen. He relates a case of a child, one year old, which had suffered from its birth an herpetic eruption, which grew so bad, that the child was covered all over with sores, attended with much pain, by which it was entirely emaciated. Antimonials, mercurials, baths, lime water, and a solution of sublimate, externally applied, were used without any avail, and even seemed to increase the complaints. At last he applied the ungt. flor. zinc, and had the satisfaction to see this remedy mitigate the pains, and heal the sores, so that within a fortnight no ulcerating place remained, and the child at present enjoys the best health.

The same gentleman recommends the following tincture of digitalis purpurea, to which he gives the name of tinctura digitalis aquoso ætherea, and in which all the efficacious particles of this plant are concentrated. Take three ounces of very good digitalis, well dried and cut in small pieces, macerate them with eighteen ounces of distilled water for twenty-four hours, now and then shaking the vessel, and then strain, pouring on the herb distilled water, till it passes off without colour and taste. Evaporate the liquor that is thus obtained in the water bath, till three ounces remain. The herb that has been in this manner extracted, being carefully dried, is infused with six ounces of spiritus sulphurico

æthereus

ætherens (liquor anodynus) and after the space of twenty-four hours it is expressed, strained, and added to those three ounces of liquor. This tincture contains the extractive, resinous, albuminous and acrid matter of that medicinal plant.

Mr. Kelch of Königsburg, has made some remarkable Galvanic experiments on the body of a criminal who was beheaded for a capital crime. The pile of which he made use consisted of sixty-two plates of zinc and copper, which was combined with another of fifty-two strata. The head immediately after the execution was placed on a table, and while the spinal marrow, which was cut through at the sixth vertebra colli, was touched with the conductor of the zinc pole, the conductor of the copper pole was applied to the left upper eye-lid, and immediately the eyes, which were only half shut, opened themselves, in which state they remained as long as the chain was shut. The eye-lids not only contracted themselves, but shewed a tremulous motion, which ceased immediately after removing the conductors. The contractions were still stronger, on moistening the eye-lids with a solution of sal ammon. No change could be produced either in the iris or in the pupilla. On touching the ala nasi and the septum mobile with the copper pole conductor, the ala distended itself and became tremulous, the septum and the point of the nose were drawn downwards. By touching the middle part of the upper lip it approached to the under lip, but not so much as to shut the half-open mouth. On applying the conductor of the copper-pole to the corner of the mouth, the upper lip was contracted, while the under lip remained immovable; the tongue shewed undulating motions when touched with the conductor of the copper pole. Similar contractions followed in the temples and cheeks. On touching the spinal marrow, and any part of the face, the fore part of the neck came into a sudden motion, resembling the act of swallowing, which lasted some time after having removed the conductor. All these experiments were several times repeated, and continued for above half an hour. On the left arm, a place two inches large of the musculus biceps was laid bare, and having touched the spinal marrow with the conductor of the zinc pole, and that place with the copper pole conductor, the muscle was suddenly contracted; the fore arm turned itself, moving at the same time towards the body, and likewise the upper arm made a turning motion, drawing near the body; but as soon as the conductor was removed, the arm fell back into its former situation. On bringing the spinal marrow and the scrobiculus cordis within the Galvanic chain, the latter part, with all the integuments of the belly, began to raise itself; the thorax contracted, forming a convexity; the arms became stiff, were raised and moved towards the trunk; the shoulders were lifted; the upper part of the spine was bent, moving somewhat down the table; but when the Galvanic chain was opened, all these motions disappeared.

peared. On repeating the experiment, the same motions ensued, except the latter. The muscles of the belly likewise showed contractions. The large and small intestines could by no means be excited to contract, nor yet the stomach, though they had previously been moistened with a solution of sal ammon. While the zinc pole remained in combination with the spinal marrow, the conductor of the copper pole was applied to the abdominal surface of the diaphragm, and to the processus ensiformis of the sternum, by which it was considerably contracted, but a motion of the heart could not be perceived. Touching the pericardium produced not any contraction; but on opening it, and touching the heart on the anterior part of the right ventricle, some slight motions at the apex cordis, and where the large blood-vessels enter the ventricles, and at the right auricula, could be produced. The heart was taken out of the body, and being laid on the hand of a gentleman who assisted at the experiments, the zinc conductor was introduced into the right ventricle, while the apex cordis and the surface of the left ventricle was touched with the copper conductor, by which means considerable contractions, and particularly an alternate contraction and distension of the orifice of the right ventricle, where the arteries enter it, and of its auricle were produced, which even continued for a few minutes after having removed the conductors. The limbs having become cool during the former experiments showed but slight contractions. On laying bare and galvanising the musculus Sartorius, the motions of the thigh were more considerable. A cutaneous branch of the crural nerve, touching with its inner surface the musculus sartorius was prepared and combined with a bare place of the muscle of the other limb; the nerve contracted, while slight motions were at the same time perceived in that muscle, to which the zinc conductor had been applied, and the place of the nerve which had been touched with the conductor became the next day light brown, and dry, while the remaining part was soft, moist, and of its natural colour.

St. Thomas's and Guy's Hospitals.

The Spring Course of Lectures will commence as usual in the beginning of February, viz.

Anatomy and Operations of Surgery, by Mr. Cline and Mr. Cooper.—Practice of Medicine, by Dr. Babington and Dr. Curry.—Chemistry and Experimental Philosophy, by Dr. Babington and Mr. Allen.—Theory of Medicine and Materia Medica, by Dr. Curry.—Midwifery, and Diseases of Women and Children, by Dr. Haighton.—Physiology, or Laws of the Animal Œconomy, by Dr. Haighton.—Principles and Practice of Surgery, by Mr. Cooper.

Sometime in the Spring, Mr. Coleman, Professor at the Veterinary College, will give a Course of Lectures on the Veterinary Art.

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These Lectures are so arranged, that no two of them interfere in the hour of attendance; and the whole is calculated to form a complete Course of Medical and Surgical Instruction.—Terms and other particulars to be learnt of Mr. STOCKER, Apothecary to Guy's Hospital.

THEATRE of ANATOMY, Blenheim Street, Great Marlborough Street.

Mr. BROOKES will commence his Spring Course of Lectures on Anatomy, Physiology, and Surgery, on Saturday the 21st of January, 1804, at two o'clock.—The Dissecting Rooms are open from eight in the morning until two, where Mr. Brookes attends.

Dr. CLARKE'S Spring Course of Lectures on Midwifery and the Diseases of Women and Children, will begin on Monday, January 30, at a quarter past ten o'clock, at the house of Dr. Clarke, No. 1, New Burlington Street. These Lectures are not given in the summer.

Dr. BATTY'S Lectures on Midwifery, and the Diseases of Women and Children, will begin on Monday, Jan. 30, at half past ten o'clock, at his house in Great Marlborough Street.

Mr. TAUNTON'S Spring Course of Lectures on Anatomy, Physiology, and Surgery, will recommence on the 21st day of January, 1804, at eight o'clock in the evening; and the Lectures will be continued every Tuesday, Thursday, and Saturday, at the same hour. Particulars may be known by application to Mr. Taunton, No. 10, Paternoster Row.

Mr. S[illegible]ER, Successor to Dr. Pole, will commence his Second Course of Winter Lectures on the Elements and Practice of Midwifery, at his Lecture Room, 102, Leadenhall Street, on Monday, Jan. 8, 1804, at six o'clock in the evening.

Dr. KISBY, of Edinburgh, proposes this Winter, or in the ensuing Spring, to deliver a Course of Lectures on the Principles and Practice of Medicine.

TO CORRESPONDENTS.

S. J's. Paper on the Means of preventing Contagion will appear in our next Number.

Philomedicus is postponed for want of a proper Signature.

Communications are received from Dr. Aberdour, Dr. Scott, Mr. Marson, Mr. Boswell, Mr. Ward, and Mr. G. N. Hill.

No. (

The Stove Ventilator, lately invented by Salmon.

Printed for Richard Phillips, No. 71, St. Pauls Church Yard, Feb. 1. 1804